A TREATISE ON THE ERRORS AND DEFECTS OF MEDICAL EDUCATION;

IN WHICH ARE CONTAINED

OBSERVATIONS ON THE MEANS OF CORRECTING THEM.

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Obstat quicquid non adjuvat. QUINTILIAN.

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M.DCC.XCIV.

TO

PETER JOHNSON, Esquire.

DEAR SIR,

YOUR Character in the literary world is too well known to receive any additional luſtre from my pen. In private and in public life, the excellency of your conduct has been equally conſpicuous; as is clearly evinced by the high eſteem of all who know you. Not to mention the happineſs

of

of your friendſhip, your diſtinguiſhed learning, as a Gentleman and a Scholar, adorned with every ſocial virtue and ſound principle of religion and morality, has enabled you to diſcharge the various duties of life with honor and dignity to yourſelf, and comfort and happineſs to all around you. Forgive, dear Sir, the liberty I have taken in thus freely addreſſing you in the language of truth, dictated by a heart full of reſpect and gratitude. Your permiſſion to dedicate to you the following Pages, is an additional mark of your kindneſs and friendſhip for one, who muſt ever think

think it an honor to ſubſcribe himſelf,

Dear Sir,

Your obliged Friend,

and obedient

humble Servant,

THOMAS WITHERS.

York, 15*th March*, 1794.

To the READER.

THE following Treatiſe on the ERRORS and DEFECTS of MEDICAL EDUCATION was written prior to that on the Uſe and Abuſe of Medicine, and has been in the Author's poſſeſſion near twenty years. On re-examination it appears to contain obſervations not unworthy to be made public; for if *errors* in *education* are corrected, it is to be hoped that *errors* in *practice* will be *leſs frequent*, and conſequently the abuſe of medicine leſs to be complained of.

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THE

INTRODUCTION.

IT is intended, as introductory to the following pages on MEDICAL EDUCATION, to make a few remarks on the NEGLECT of that METHOD of STUDY, which is beſt adapted for obviating the defects, correcting the errors, and forwarding the improvements of medicine. For it generally happens, that if arts and ſciences be at firſt cultivated on a narrow contracted plan, the mind is ſo prone to fall under the influence of indolence or prejudice, as to feel itſelf afterwards either unwilling or unable to cultivate them in a liberal and extenſive manner.

The conduct therefore of thoſe phyſicians ought not to be paſſed over in ſilence, who

have illiberally attempted to explode all reaſoning in the art of medicine. The gentlemen who have choſen to rank themſelves, or who are deſervedly ranked by others, under the claſs of Empirics, too numerous indeed in every age, have in general been in their profeſſion as illiterate and ſhallow, as in their manners proud and overbearing*. By ſuch aſſumed carriage, it may be concluded, they would acquire with ſome a degree of dignity and importance, which on juſt grounds they were conſcious to themſelves that they had no right to expect. Empiriciſm, by the moſt learned part of the faculty, has ever been held in high contempt, and juſtly regarded as a great hinderance to the advancement of medical knowledge. Fortunately for the cauſe of our profeſſion, there is not an univerſity in the preſent age, where medicine is taught on an empirical plan. The ſuperiority of Dogmatiſm is no leſs clear in argument, than evident from experience†. After inſtinct,

* Empirics are ſuch perſons as have no true knowledge of phyſical practice, but venture upon obſervation only.—They practice by rote, without rational grounds.—Empiriciſm ſignifies quackery. JOHNSON.

† A dogmatic is one who practiſes phyſic on eſtabliſhed principles, and is placed in contraſt with the empiric, who, being unlearned, has no ſettled notions in his profeſſion. Dogmatiſm is oppoſed to quackery. JOHNSON.

inſtinct, reaſon is our ſafeſt guide. The practice of an empiric, being founded on no ſolid rational principles, muſt ever be vague and fluctuating, if not raſh and highly dangerous. He neglects the ſtudy of anatomy, and ſeems in effect to deſpiſe all inveſtigations into the ſtructure and uſes of the different parts, and to deſert all phyſiological inquiries concerning the laws of the animal economy. So many caſes occur in practice, which are eaſily aſcertained by the powers of reaſon, but which muſt ever remain obſcure, if not unaccountable to empirics, that we cannot but pity thoſe credulous perſons, who, through ignorance, ſuffer from their weak, unſkilful, and raſh treatment of diſeaſes.

Before an empiric can practiſe phyſic with ſucceſs, he ought certainly to have acquired not only an accurate knowledge of the hiſtories of the different *genera* of diſeaſes; but, what is of more conſequence, of the different *ſpecies* and *varieties* which have occurred. It muſt however be confeſſed, that there are no empirical writings in medicine which, with the leaſt color of truth, can be ſaid to contain ſuch a ſtock of hiſtorical learning. Here therefore the empiric muſt experience in his imaginary

ſyſtem, a moſt material defect. He muſt acknowledge that to extricate himſelf out of this difficulty, the light of reaſon can alone direct him. But he will have the mortification to feel his mental powers enervated by diſuſe. He will find that to obtain an accurate account of medical facts, he is under the neceſſity of ſtudying dogmatical writings. Theſe he cannot but peruſe under every diſadvantage, when he is not only prejudiced againſt them, but ignorant of anatomy and of the inſtitutions of medicine.

Beſides, the empiric would do well to ſearch more narrowly into what paſſes within himſelf. He would then ſoon be convinced, that he is not what he pretends; and would naturally be led to doubt the exiſtence of a real empiric. To reaſon is a natural function of the mind of man. The propenſity to it is altogether irreſiſtible. For any one to attempt to forbid himſelf the uſe of reaſoning, is equally as abſurd, as if he ſhould reſolve, while his organs of viſion were perfectly ſound and expoſed to a fair light, that he would not ſee, however indiſtinctly, a ſingle object before him. The truth of the matter is, that every phyſician muſt neceſſarily reaſon, but with this material difference,

difference, that he who beſt underſtands his ſubject, will reaſon upon it with the greateſt juſtneſs. For he, who is able accurately to detect the fallacy of another's reaſoning, is moſt capable of avoiding fallacy in his own; and the being conſcious of errors is a powerful motive to keep us on our guard againſt them.

There are thoſe, who declare themſelves profeſſed enemies to theory, and yet who argue in medicine in a manner truly ridiculous; who obſtinately reject the reaſonings of others, however excellently founded; affect to diſbelieve, what in reality they do not comprehend; advance, through ignorance, theories of their own the moſt extravagant; and draw concluſions from principles of the moſt dubious nature, with the ſame confident aſſurance, as from the beſt eſtabliſhed facts*. To render therefore our reaſonings in medicine ſafe, the theory ought to be ſtudied in its utmoſt extent.

It is an opinion advanced by the late celebrated Dr. Cullen, whoſe medical reading was confeſſedly great, that falſe facts are more numerous

* See the learned Dr. Percival's Eſſays, vol. I. page 43.

numerous than falſe theories. The obſervation I apprehend is ſtrictly juſt. Hence an inſuperable difficulty occurs to the empiric; for how ſhall he be capable of diſtinguiſhing between truth and falſehood, who has declared himſelf averſe to reaſoning. The human body is of a complicated ſtructure, and its diſorders, as well as their cauſes, are numerous and variouſly combined. Hence the indiſpenſable neceſſity of inquiring minutely into the laws of the nervous ſyſtem; and into thoſe too of the animal economy, conſidered as a chymical mixt, an hydraulic engine, and a mechanical machine; in order that the phyſician may be able, not only to practiſe his art with ſucceſs, but even judiciouſly to collect the facts which fall under his obſervation*. To the want of ſuch knowledge, may indiſputably be attributed in part that immenſe multiplicity of inaccuracies and contradictions, which we meet with in the relation of medical facts. Hence cauſes have often been miſtaken for effects, and ſtill oftener effects for cauſes; the hiſtories of diſeaſes have been drawn up without method; their

* *Lectures on the Inſtitutions of Medicine*, by the late Dr. Cullen, who from his great genius and deep erudition was wont to conſider every ſubject in its moſt extenſive point of view.

their ſymptoms rarely enumerated in that order, in which they occur in nature; and the practice has been overloaded with a rude indigeſted heap of ineffectual medicines, and often rendered pernicious by the imprudent uſe of efficacious ones.

Empiriciſm indeed is not ſuperior to dogmatiſm in a ſingle point. For that phyſician does not merit the name of a dogmatic*, who is not equally as inquiſitive after the attainment of uſeful facts, as any empiric whatever, and who does not rate them at as high a value. In this boaſted part of the empiric's plan, the dogmatic is at leaſt upon an equal footing with him, unleſs it may be conſidered as a diſadvantage to be poſſeſſed of greater medical erudition, nicer habit of diſcernment, and ſuperior force of reaſoning.

But the abuſe of theory, as well as the neglect of it, has added largely to the abuſe of medicine. Theory is the application of general rules, cautiouſly founded on facts, to regulate and explain particulars †. This is the light, in

* Vid. page 6.

† Ferguſon's Lectures on Moral Philoſophy.

in which theory in a philoſophical ſenſe ought to be underſtood; although it muſt be acknowledged, that that term has often been abſurdly uſed to convey a very different meaning. It is notorious, that one of the greateſt abuſes of the theory of medicine has ariſen from ſubſtituting vague hypothetical opinions without the leaſt ſhadow of ſupport, in the place of theories well eſtabliſhed in fact. Unfortunately examples of this nature ſometimes occur in many of our moſt correct medical writings, but they abound in thoſe of an inferior order.

I am no enemy to hypotheſes, treated as ſuch, becauſe, under the direction of men of ſenſe, they have frequently tended to forward the progreſs of ſcience. We often at firſt ſuppoſe a thing to be true, which afterwards we confirm by facts, deduced from a careful obſervation of nature. Here the ſuppoſition proves of real utility. The chief cauſe of our complaint is, that their inventors, naturally too partial to their own hypotheſes, are apt to forget their proper uſe, and abſurdly to conſider them as well atteſted theories.

But no man, to whom the care of health and life is intruſted, ſhould ever dare ſo

to

to trifle with his charge, as to found his practice on imaginary principles. No prudent phyſician ſhould ever give the leaſt credit to a theory, which might influence his practice, unleſs it were well ſupported by facts; and, as a late eminent profeſſor of medicine expreſſed it, terminated at laſt in a fact itſelf*. It is the neglect of ſuch theories as thoſe, ſuch general fundamental principles, which makes empiriciſm truly contemptible; and it is the careful cultivation of them, which dignifies the dogmatic, renders his practice more ſucceſsful to his patients, as well as more ſatisfactory to himſelf.

But where the dogmatic has aſſumed his principles on ſlight foundation, unſupported by facts and experience, and then attempts to regulate the conduct of his practice by the erroneous guidance of falſe doctrines, he inſults common ſenſe, and moſt materially injures the public. For falſe theory, it is well known, has often led to unſucceſsful practice. Falſe

* *Lectures on the Inſtitutions of Medicine*, by the late Dr. Gregory, who was a man of the greateſt caution and ſoundeſt judgment, as well as deepeſt erudition.

theory introduced the fatal error of adminiſtering heating remedies, in the treatment of inflammatory diſorders. Falſe theory induced ſome of the antients, in oppoſition to the loudeſt calls of inſtinct, to deny their patients, during the firſt two or three days of inflammatory fevers, the indulgence of a little water to quench a thirſt, no leſs inſupportable in itſelf, than dangerouſly tending to aggravate the complaint. Van Helmont is ſaid to have died of a pleuriſy, becauſe from theory he refuſed to be bled. Eraſiſtratus, from theoretical views, taught his followers, that bleeding and purging in any diſorder whatever was an abſurd and pernicious practice; in conſequence of which extravagant doctrine he may in all probability have been acceſſary to the death of numbers of his fellow-creatures. Lieutaud mentions a phyſician, who, from erroneous principles, attempted to remove a diſorder by bleeding his patient a hundred times within a year, by which raſh treatment his ſtrength was exhauſted and his conſtitution deſtroyed. Innumerable examples indeed might be collected to prove the bad effects of ill-founded theories, which ought to be as ſeverely decried, as good ones deſervedly ſupported. But here we may remark, how weak the judgment of thoſe who would

would reject all theory from the practice of medicine, becauſe, when abuſed, it has been productive of pernicious conſequences. As well might we deny the utility of reaſon and of ſpeech, beſtowed by indulgent heaven on man alone, in heightening the pleaſures of ſociety, and aſſiſting in the conduct of human affairs; becauſe we ſo frequently find that reaſon is erroneous, and the faculty of ſpeech abuſed in ſuch a manner, as to be a diſgrace to the human underſtanding. If the ſound doctrines of the inſtitutions of medicine lie too much buried amidſt the copious rubbiſh of ignorance and falſehood; a ſpirited deſire of improvement will excite the endeavors of men of genius, to extricate them with all poſſible induſtry and ſucceſs.

To depreciate the value of theory and keep in countenance a jealous tribe of empirics, it has been advanced by ſome that, however phyſicians may differ in their principles, they agree in their practice. But it may be affirmed on the beſt authorities that this aſſertion is as falſe in fact, as it is abſurd in contemplation. Any one who is at all converſant in medical writings, either antient or modern, cannot but know that there are many important diffe-

rences in the practice of phyſicians. Beſides, although in words there ſhould be a near agreement both as to their theory and their method of cure; yet in practice, where diſeaſes preſent themſelves much complicated, imperfectly formed, in various ſtages, and with various aſpects, the treatment of ſimilar complaints will in many inſtances be found in the hands of different practitioners to have been extremely different. But where phyſicians have diſſimilar theories and contrary opinions concerning the uſe and operations of remedies; where ſome practiſe with principles, and others without; how is it poſſible to conceive that ſuch men ſhould not conſiderably vary in their judgment on the reſpective indications, and conſequently on the method of cure. Experience itſelf concurs with reaſon in eſtabliſhing this unqueſtionable truth; and often indeed the diſappointed patient finds among practitioners a moſt material difference of treatment, his ignorance of which he has the greateſt cauſe to lament.

Theſe obſervations ſeem ſufficient to enforce the advantages of cultivating the ſtudy of medicine, with the exacteſt caution, as well as with the moſt liberal and extended views of ſcience;

ſcience; and they ſerve at the ſame time to expoſe the dangerous effects of low quackiſh arts, which are diſgraceful to our profeſſion, and of flimſy hypotheſes, miſtaken for theoretical truths, eſtabliſhed in nature and founded on experience.

OBSERVA-

OBSERVATIONS

ON THE

ERRORS AND ABUSES

OF

MEDICAL EDUCATION.

THE ERRORS and ABUSES of MEDICAL EDUCATION are a very important ſubject, and deſerve a ſerious conſideration. Many of the abuſes of medicine, which take place to the great detriment of ſociety, originate from the want of proper inſtruction. Several medical practitioners engage in their profeſſion, with little or no education; and ſome indeed without having attended even a ſingle courſe of anatomical lectures. Age, good connections, induſtry, regular conduct, a ſociable diſpoſition, and a mild

pliant

pliant temper, together with ſome confuſed ſcattered ideas of a few common diſeaſes, collected chiefly from caſual obſervations on the practice of others, conſtitute the means by which many acquire a conſiderable reputation in the healing art. Such practitioners can have but little knowledge of the rudiments of their profeſſion; their reaſonings muſt be weak and ſuperficial; and their judgment concerning the ſeat, nature, cauſes and cure of diſeaſes, ill founded and not to be depended upon.—But where life and health are the ſtake, who can riſk a greater? And when a man has really loſt his health, and finds himſelf laboring under a complaint, become incurable by ill treatment, what is there then that he would not do to regain it?

Now if in the common routine of buſineſs, ſo much danger and ſo many difficulties occur to practitioners who have had little or no inſtruction, what muſt be the conſequence where caſes are obſcure and of difficult inveſtigation? Will not one diſorder be continually miſtaken for another? Will not a practice totally oppoſite to the real nature of the diſeaſe be continually adopted; and medicines exhibited, which tend to increaſe and even fix the complaint,

plaint, rather than to remove it?—But to paſs from theſe melancholy reflections, (which experience but too much juſtifies) I ſhall proceed to make *ſome obſervations* on the *errors* and *abuſes* of *medical education*, which though they can have but little effect on the preſent, may add ſomewhat to the improvement of the riſing generation.

But before I proceed to mention the particular abuſes of medical education, permit me to give a caution or two to parents and guardians concerning the *natural capacity* and *general health* of thoſe, who are intended to practiſe the healing art; an art of all others the moſt noble and the moſt uſeful to mankind, when cultivated by men of experience, erudition, and judgment.

Where there is a *natural defect* of *underſtanding*, it is impoſſible for any one to engage in the profeſſion of medicine with ſucceſs either to himſelf or others. With reſpect to himſelf, if his livelihood depend upon his buſineſs, he will probably want the neceſſaries of life, or be a conſtant burden to his friends; and with reſpect to his patients, common ſenſe will determine what muſt be the unavoidable conſe-

quence to them. This is a defect too which almoſt every one at firſt ſight can diſcover, except thoſe only who are as weak as himſelf, or blindly prejudiced in his favor. There are many profeſſions, honorable in themſelves and uſeful to mankind, in which a perſon of moderate parts may ſtand a fair chance to ſucceed. But in medicine it is otherwiſe; for here the practitioner is either a bleſſing or a curſe in the place where he lives, and if he does not do good, he muſt in his practice be continually doing harm to thoſe who are unfortunately committed to his care.

Beſides an obvious want of underſtanding in ſome, there are others in whom the deficiency is more latent, but not leſs pernicious in its effects on ſociety. Perſons of this deſcription have an appearance of underſtanding; and, by time and induſtry, may acquire a tolerable notion of ſome common medical facts, which they may be able to bring forward in writing or converſation. But then they have no ſolidity or baſis, on which to eſtabliſh the practice of a phyſician. Their judgment, when put to the teſt, is not ſound; and the knowledge which they ſeem to poſſeſs, is generally miſapplied. In converſation with them, a practitioner of abilities

abilities and experience is ſometimes ſurpriſed to find the abſurd arguments which they advance, and the erroneous opinions which they ſupport with warmth concerning the nature, cauſes, and cure of diſorders. Suppoſing them to have a tolerable ſhare of underſtanding, he feels ſomewhat diſpleaſed at their obſtinacy; but knowing the real defect of their natural abilities, the ſolution of the difficulty is obvious; and if he be then offended at the weakneſs of their reaſonings, the fault is his own. Medical men of this character, are often forward and aſſuming; for they generally poſſeſs that degree of pride and low cunning, which inſtinctively leads them to put on a good aſſurance, as being in ſome meaſure a maſk for their defects*; but in their profeſſion they are without depth, without judgment, and without

* Of all the cauſes which conſpire to blind
Man's erring judgment, and miſguide the mind,
What the weak head with ſtrongeſt bias rules,
Is pride, the never-failing vice of fools.
Whatever nature has in worth deny'd,
She gives, in large recruits, of needful pride;
For as in bodies, thus in ſouls, we find
What wants in blood and ſpirits, ſwell'd with wind:
Pride, where wit fails, ſteps in to our defence,
And fills up all the mighty void of ſenſe.

Pope's Eſſay on Criticiſm.

diſcrimination; and their practice and experience is altogether

Rudis indigeſtaque moles.

If a perſon of this deſcription intend to be bold in his treatment of a diſeaſe, he diſdains the boundaries by which others of ſound judgment regulate their practice, and, by unwarrantable raſhneſs, ſports dangerouſly with the lives of his fellow-creatures; or if he wiſh to be cautious in his method of treatment, he is ſo perfectly uſeleſs, as on the other hand to allow the diſorder to gain ſtrength by delay.

Parents or guardians of good ſenſe, will often of themſelves make a full diſcovery of any defect of underſtanding. In this caſe they ſhould be ſteady in refuſing their conſent to the predilection of youth, or the injudicious advice of their ignorant companions. But if near relations or friends may ſometimes be thought prejudiced or partial, let them conſult with others, on whoſe judgment they can rely with confidence; and who will not be afraid to give them an honeſt opinion, without flattery on the one hand or ſeverity on the other. Sometimes even when we have not a friend to do it, an enemy unſolicited will make the unwelcome diſcovery; and this is one advantage

tage among others, which men of ſenſe may derive from their enemies. Sometimes too thoſe perſons who have ſuperintended their education in their early years, may be able to give uſeful hints on this ſubject. But by whatever means the natural want of underſtanding be diſcovered, let it be the fixt and invariable guide of conduct to parents and guardians, to prevent young men of that predicament from engaging in the ſtudy of the ſcience of medicine, which even to men of genius is a difficult and arduous undertaking.

The next hint I would give to parents and guardians is concerning the *natural conſtitution* and *general health* of thoſe committed to their care; for if that point be not duly attended to, all labor and expence in their education may probably be loſt. The practice of medicine is a laborious employment, and requires a conſtitution, which, though not robuſt, is yet able to undergo hardſhips and fatigue.—Nothing is more unfavorable to a young man, engaged in this profeſſion, than to have *knots or tubercles in the lungs* along with a narrow cheſt and delicate conſtitution, in which caſe the lungs become tender, and liable to be affected by cold and various changes of weather. Frequent

quent coughs, ſhortneſs of breath, difficult lying, a weak voice, and flying pains in the breaſt, together with difficulty of breathing and expectoration of viſcid and ſometimes bloody mucus, will diſcover this ſtate of the lungs.—*Glandular obſtructions* alſo in the *meſentery**, are extremely unfavorable to a medical ſtudent. Tender relaxed bowels, a weak irregular appetite, pale ſallow countenance, tumid body, emaciated habit, frequent diarrheas, and tranſient colic pains, will afford a ſtrong indication of meſenteric obſtructions, which are of very ſerious conſequence, and ought therefore never to be neglected at their firſt appearance.—If along with ſymptoms of tubercles of the lungs, or obſtructions of the meſentery, there be any *external glandular ſwellings* in the neck or other parts of the body, the caſe will ſtill be clearer.

Theſe

* "Meſentery is a membrane beginning looſely upon the loins, and is thence produced to all the guts: It preſerves the jejunum and ileum from twiſting in their periſtaltic or vermicular motion, and confines the reſt to their places. It ſuſtains all the veſſels going to and from the guts, viz. arteries, veins, lymphaeducts, lacteals and nerves, and alſo contains many glands, called, from their ſituation, *meſenteric*." Cheſeldon's Anatomy, page 169.

Theſe and ſuch like complaints are ſo obſtinate and difficult to be relieved, and, when relieved, are ſo apt to return, that it is almoſt impoſſible for any one, who is much afflicted with them, to engage ſucceſsfully in the practice of the healing art. The profeſſion of medicine, eſpecially in the country, ſubjects its followers to all the viciſſitudes of heat and cold. There is no choice of ſeaſons or of weather left to themſelves. Day and night they are expected to be in readineſs; and any diſorder which they may have, unleſs it be violent indeed, will hardly be admitted by their patients as a ſufficient excuſe for want of attendance. If they be ſeized with any return of their complaint, they have little or no opportunity to take proper care of themſelves, eſpecially at its commencement, which is generally the principal and moſt critical part of medical practice, and that on which the ſucceſs of the whole depends. They are frequently obliged to change their houſe and bed in the moſt inclement ſeaſons, and to take journeys of conſiderable length, in which very unfavorable circumſtances occur from ſevere weather, bad roads, inconvenient ferries, and various unforeſeen accidents.

For

For theſe and other reaſons, it is evident that the practice of phyſic muſt be a dangerous employment to a perſon of a weak and delicate habit, and more eſpecially if he be a youth of ſpirit, who cannot eaſily bear to ſee his equals, and much leſs his inferiors, put before him in the honors and emoluments of his profeſſion. Young men of this delicate frame of body are often poſſeſſed of the moſt enlightened, noble, and generous minds, which circumſtance renders their ſufferings peculiarly diſtreſſing to their friends. They frequently will indeed forget themſelves, make light of their own complaints, and puſh forward boldly in the career of fame, until they either accompliſh their point or nobly fall in the cauſe. It is a melancholy reflection to ſee young men of this excellent character engaged in an undertaking to which they are not equal, and in the purſuit of which they muſt in all probability fall early victims. Or ſuppoſe even they ſhould live to eſtabliſh their reputation, and ſecure to themſelves an extenſive practice, above either the impudence of the ignorant or the calumny of the envious, what a mortification muſt it be not only to their friends, but even to the public, to ſee young men of that character and genius, languiſhing and dying of

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a complaint at the prime of life, of which they could neither foreſee the danger, nor be convinced of the exiſtence, till it were too late to remove it.

It is at the ſame time proper to obſerve, that if a ſtudent of phyſic be a man of fortune, he will, though of a weak and delicate frame of body, have many advantages over another of a ſimilar conſtitution, but in confined circumſtances. In the firſt place he will moſt probably follow the profeſſion of a phyſician, and not that of a ſurgeon or apothecary, which two laſt profeſſions (and particularly that of ſurgery) are certainly much more hazardous to a weak conſtitution than the firſt. In the next place, he can have every convenience of ſervants, horſes, carriages. &c. to guard him againſt all inclement weather and ſudden changes from heat to cold. He may likewiſe take up his reſidence in a large city, and, without inconvenience to himſelf, wait patiently for ſome years, until he comes into full practice. He may, if he pleaſe, fix in the metropolis, where the profeſſion of phyſic is exerciſed within a more limited circle, and in a regular uniform manner; and conſequently is not near ſo dangerous to a weak habit, as in the country.

Beſides a tender and debilitated conſtitution, there are other bodily defects which might be mentioned, as being objectionable to the practice of phyſic, ſuch as *deafneſs*, *conſiderable impediments of ſpeech*, *any great and viſible deformity of body*, *&c.* but it is needleſs to enlarge on particulars, which are ſo obvious at firſt ſight. At the ſame time I muſt obſerve, that ſuch is the force of induſtry, abilities, and a good education, that there are ſome who, notwithſtanding great defects of this kind, do the higheſt honor to the healing art, and far ſurpaſs in fame and ſucceſsful practice many others, who have every perſonal advantage and bodily endowment, but are deficient in the knowledge of the hiſtory and cure of diſeaſes.

Having made theſe previous neceſſary obſervations on the natural capacity and general health of thoſe, who are beſt qualified to enter on the ſtudy of phyſic, we proceed to the conſideration of the *errors* and *abuſes* of *education*, which take place in thoſe who deſign to practiſe the healing art. With a view to comprehend more fully the principal branches of this important ſubject, it may not be improper to conſider the *want* of *neceſſary preliminary*, and *ornamental learning*;—the *want* of *medical learning*;

ing;—and ſome other *defects* and *abuſes* of *education*, ariſing from *various cauſes*. Theſe laſt, though too ſhort in general to form diſtinct heads, cannot be properly introduced under the firſt or ſecond head; and yet they are of too great moment to be paſſed over in ſilence.

On the want of neceſſary preliminary, and ornamental learning.

The character of a phyſician ought to be that of a gentleman, which cannot be maintained with dignity, but by a man of literature. He is much in the world, and mixes in ſociety with men of every deſcription. He ought therefore to be well acquainted with men and manners. If a gentleman, engaged in the practice of phyſic, be deſtitute of that degree of preliminary and ornamental learning, which is requiſite to qualify him to act with dignity and propriety in his profeſſion, he will be in danger of expoſing himſelf, as well as his profeſſion, to ridicule, if not to contempt. Such a one, for inſtance, if he do but ſpeak on any ſubject either of hiſtory or philoſophy, is immediately out of his depth, his thoughts are confuſed, his language incorrect, and his concluſions

weak and erroneous. Or if he attempt to ſet down his thoughts on paper, he will probably be ſo defective in grammar and expreſſion, that a ſchool-boy would be aſhamed of his writing. With a view therefore to prevent this defect in medical characters, which is a real diſcredit to the profeſſion, I ſhall point out what preliminary and ornamental learning is neceſſary for a phyſician; without on the one hand leaving his character defective, or on the other requiring too great mental exertion, which would not only impair his health, but ingroſs too large a portion of his time.

I paſs by the early period of life, in which *writing*, *reading*, *common arithmetic*, *&c.* are uſually acquired.—With reſpect to the firſt there are phyſicians who affect to write a *bad hand*; but it is an unpardonable fault not to write a *legible hand*; ſince from the want of it, the moſt dangerous effects may enſue to the health and lives of our fellow-creatures. I have known, in conſequence of this defect, a poiſon adminiſtered inſtead of a ſafe and innocent medicine.—*Short-hand writing* alſo is very uſeful to medical ſtudents in taking notes at the different lectures, which they may attend. The beſt and moſt perfect ſhould be learned at firſt, as it is very

very difficult to lay aſide the uſe of a ſhort-hand which is once attained, and to ſubſtitute another in its place.

The *learned languages* ſoon engage the attention of youth, and theſe indeed will amply repay his labors—I mean *Latin* and *Greek*.

A thorough knowledge of the *Latin language* is abſolutely neceſſary for a medical ſtudent. Not to mention the great loſs he muſt ſuſtain in being deprived of the pleaſure of reading the Latin claſſics, he will, without this language, be unable to ſtudy medicine to advantage. Many of our beſt medical authors have written in the Latin tongue, which being a language univerſally underſtood, affords a medium of conveyance for the improvements of our art into every diſtant region of the world. In foreign univerſities, the profeſſors of medicine uſually deliver their public lectures in Latin; which indeed was formerly the cuſtom at Edinburgh and other ſeminaries in this iſland, famous for medical inſtruction. Another advantage is, that with the Latin tongue a man may travel over the learned world, and acquire knowledge in every quarter of the globe; but without this neceſſary language, he will often

often in foreign countries ſit an idle ſpectator, while others, of his own age and ſtanding, are making daily and rapid improvements. Nay without Latin, he will be unable either to write or read a common medical preſcription.

With regard to the *Greek Tongue*, it is rich, harmonious, and highly expreſſive; which renders it extremely difficult to be tranſlated into other languages. There are many excellent Greek writings in poetry, hiſtory, and other branches of literature, which cannot but give great pleaſure, and afford much ſolid inſtruction to young minds. But notwithſtanding my partiality for the Greek tongue, I cannot, with truth, ſay ſo much for its importance in the ſtudy of medicine. Hippocrates I revere, and Galen I admire, as fathers of the healing art; and it muſt be confeſſed to be highly gratifying to the mind, to trace the uſeful diſcoveries in the hiſtory and cure of diſorders, which were made by thoſe immortal geniuſſes*.

But the knowledge of the preſent age in anatomy, chymiſtry, and conſequently in the theory

* All the uſeful knowledge which is contained in the writings of the antients, is carefully delivered in thoſe of the moderns, with many important additions and improvements.

theory and practice of phyſic, is found ſo infinitely to ſurpaſs that of the antients, as to render far the greateſt part of their writings a confuſed heap of unintelligible jargon. And how ſhould it indeed be otherwiſe, when they did not even know the circulation of the blood, nor the paſſage of the chyle from the bowels through the lacteal veſſels and thoracic duct into the left ſubclavian vein; nor had any clear ideas of the limphatic abſorbent veſſels, of glandular ſecretion, or of the nature and functions of the brain and nervous ſyſtem. For theſe reaſons, one cannot with any color of argument recommend an accurate knowledge of the Greek language, as abſolutely neceſſary to the ſtudy of medicine. We have no modern books written in Greek, and even the attempt to do it would be pedantic and ridiculous. It is true indeed that many of the technical terms in medicine are derived from the Greek, but then often with ſuch new ideas annexed to them, as nearly to obliterate their original meaning; for many things which they ſpoke of in a confuſed manner, we are able to ſpeak of with preciſion, and Greek words, as well as Latin, are often uſed by modern writers in a ſenſe unknown to the antients.

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But though I by no means conſider a critical knowledge of Greek, as eſſential to a ſtudent of phyſic; yet a moderate knowledge of it is certainly both uſeful and ornamental, and where it can be conveniently attained, it ought not to be neglected. It would not however be adviſeable to ſpend too much time in the purſuit of it; for with reſpect to its utility in the ſtudy of medicine, it will not repay the time and trouble neceſſary to acquire it. Yet ſuch a moderate knowledge of it, as may enable a man to underſtand the derivation of Greek words, ſo commonly uſed in all the different branches of our profeſſion, is pleaſing to the mind, and affords great aſſiſtance to the memory. A knowledge like this will be ſufficient alſo for any one to indulge his curioſity in reading, in the original language, ſome of the principal Greek writings of the antients in the different branches of his profeſſion.

Beſides the attainment of Latin and Greek, which are diſtinguiſhed by the appellation of the learned languages, I muſt recommend it to the medical ſtudent to acquire a competent knowledge of the *French language*. The French have always been eſteemed a learned, and till

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of late a poliſhed people; and many excellent medical productions have originated from them. After having attained the Greek and Latin tongue, the reading of French will be eaſily acquired, which will open an ample field of improvement, and enable a perſon to peruſe many excellent medical works written in that language. If he be able alſo to write and ſpeak French with tolerable eaſe and correctneſs, it will be a ſtill greater advantage; for this may be of ſingular ſervice in travelling through foreign countries, where the French language is generally underſtood. It will indeed require ſome time and pains to read, write, and ſpeak French; but the probable utility of it in his future ſtudies, will amply repay him in a profeſſional view, not to mention the very great ſatisfaction which muſt ariſe to an inquiſitive mind, from peruſing in the French language many beautiful claſſical and other learned productions.

I muſt likewiſe earneſtly caution the medical ſtudent not to neglect his *native tongue*, which is an error too common in this country*. A gentleman ought to be well inſtructed in the

* Vid. Sheridan's Proſodial Grammar.

Engliſh language, ſo as to be able to write and ſpeak it with eaſe, purity, and even elegance. The Engliſh grammar ſhould be critically ſtudied. The beſt and moſt correct authors ſhould be carefully read, and frequent eſſays made by the ſtudent to imitate their ſtile and manner of writing. Such exerciſes, as theſe, will afford much improvement to youth in acquiring an accurate knowledge of the Engliſh language.—Permit me alſo to add, that a diſtinct, eaſy, and harmonious pronunciation is a great ornament in common life, as well as in public ſpeaking, and is well worth the attention of the phyſician, eſpecially if his education and medical attainments juſtify him, as a profeſſional man, in the expectation of practiſing phyſic among the higher ranks of ſociety. A correct and diſtinct pronunciation can only be attained by conſtant attention, and by ſpeaking at all times every word with clearneſs and deliberation. A haſty inarticulate method of ſpeaking, though very common amongſt us, and, when once acquired, difficult to be corrected, is both vulgar and diſagreeable.

A moderate knowledge of *Mathematics* is neceſſary in the character of a gentleman, and conſequently of a phyſician. A deep and perfect

fect knowledge would require too much time, and is therefore out of the queſtion; neither would it be of any eſſential ſervice in the ſtudy of medicine. Formerly mathematical knowledge was thought of the utmoſt conſequence in the education of a phyſician; and many labored calculations were made to aſcertain the force of the muſcles, and particularly of the heart in the circulation of the blood. But thoſe calculations were very erroneous and diſſatisfactory. There were not ſufficient data for the mathematician to proceed upon; and accordingly as he fixed theſe, his calculations differed eſſentially from thoſe of his predeceſſors. Some, for example, proved by mathematical demonſtration that the force of the heart was ſuperior to 1500 pound weight; and others on the contrary that it was not equal to that of a ſingle pound. When men launch beyond the ſphere of human knowledge, it is no wonder that their literary productions ſhould not anſwer the expectations of the public. Mechanical calculations on the dead ſubject may be reduced in ſome meaſure to mathematical certainty: but when the living powers are included in the calculation, the caſe is quite altered; and the mathematician degrades his character by wandering like a pedant in the regions of darkneſs

and uncertainty, unable to produce conviction on the minds of the learned, and apparently content therefore with the approbation of the ignorant.

Hiſtory, *Logic*, *Rhetoric* and the *Belles Lettres*, *Natural Hiſtory*, and *Natural* and *Moral Philoſophy*, make up in part alſo the education of a phyſician. But a general only, and not an accurate and critical knowledge is here required.

With regard to *Hiſtory*, a competent knowledge of that of our own country, is chiefly to be aimed at, and eſpecially as it ſtands connected at preſent with the different ſtates of Europe. The phyſician in this branch of learning, as well as in many others, muſt ſubmit to the politician, the gentleman, and the ſcholar, who have leiſure at command, and whoſe buſineſs it is to look with a more critical eye into the laws* and hiſtory of nature and of nations.

Logic

* The firſt volume of Blackſtone's Commentaries contains a great deal of very uſeful knowledge on this ſubject, and may be read by a medical ſtudent with much advantage.—A knowledge of the law reſpecting *wills* is neceſſary for a phyſician, in conſequence of which he ſometimes may, by prudent and timely advice, prevent in families much miſery and confuſion.

Logic teaches us the art of arranging our thoughts to the beſt advantage, in order that we may be able to deliver them either in writing or converſation with full force. This is an art therefore equally as neceſſary to a phyſician, as to any other man of learning. For want of this knowledge one frequently obſerves a good cauſe weakly defended, and ſtrong arguments brought forward in a very imperfect manner, ſo as to produce no adequate effect. The arrangement of a ſubject is often confuſed and diſorderly, beginning where it ſhould end, and ending where it ſhould begin. The beſt Logic originates from nature. A pedantic diſplay of ſyllogiſtical reaſoning either in writing or converſation, is at once both abſurd and diſguſting. But to have a ſubject handled in a pointed and maſterly manner, and every part of it clearly and ably ſupported, is no leſs pleaſant to the reader, than ſatisfactory to the writer.

A competent knowledge of *Rhetoric* and the *Belles Lettres* will amply repay the medical ſtudent for his trouble in acquiring it. Such knowledge will open to him many beautiful ſcenes of nature and of art, which might otherwiſe have eſcaped his obſervation. It will make him acquainted with the principles and origin

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of true taſte. It will inſtruct him in the foundations of univerſal grammar, and lead him into all the beauties, elegance, and correctneſs of ſtyle in every ſpecies of compoſition*.

A competent knowledge of *Natural Hiſtory* is alſo requiſite. Natural Hiſtory is the ſtudy of nature, and conſequently it preſents to our view a moſt extenſive proſpect. Several of the moſt important parts of it are neceſſarily included in the education of a phyſician, and become principal objects of his attention, ſuch as chymiſtry, anatomy, botany, &c. In conſequence of a knowledge in theſe leading branches of his profeſſion, the ſtudy of other parts of natural hiſtory, and particularly of that of the animal creation, becomes eaſy, entertaining, and inſtructive. No branch of learning ſhews more forcibly the unavoidable neceſſity of the admiſſion of final cauſes, and conſequently the wiſdom of the deity in the creation of the univerſe. There never did, nor ever can exiſt in the ſame individual, a natural hiſtorian and an atheiſt.—But the phyſician muſt here alſo ſet bounds to his curioſity, and not ſpend too much

* Vid. Dr. Blair's Lectures on Rhetoric and the Belles Lettres.

much time in the more minute and trivial parts of the ſubject, leſt the natural hiſtorian and the phyſician ſhould degenerate into the virtuoſo, and the color of a butterfly or the veins of a pebble, however beautifully variegated, become ſerious objects of his attention.

A general knowledge too of *Natural Philoſophy* is indiſpenſably neceſſary; but a very accurate and critical knowledge of it is more than a ſufficient employment for the life of any one man. To underſtand the general principles of natural philoſophy is highly ornamental to the phyſician; for without a knowledge of theſe (which is by no means difficult to be attained) no man can paſs through life in the character of a gentleman. But then the phyſician muſt be content here with general principles, and not devote too much of his time to the deep and intricate parts of this important ſcience; for if he be too cloſely engaged in abſtruſe philoſophical reſearches, he will (as was before obſerved) either injure his health, or neglect his profeſſion.

Moral Philoſophy teaches many uſeful leſſons, which it is incumbent on every man to know. It is one of the nobleſt ſtudies that can engage the

the mind of man. It enters into the diſcuſſion of many important ſubjects, which, as they often occur in common life, become frequent topics of converſation. It explains the nature, origin, and neceſſity of ſociety; it teaches the foundation of human laws; it unfolds the different politics, by which different nations are governed; and above all it brings us acquainted with the being and attributes of the Deity, and the unalterable obligations of religion and morality*.

So much for the enumeration of the particular branches of preliminary and ornamental learning, which is neceſſary in the education of a phyſician. But notwithſtanding its utility, how many young gentlemen do we daily ſee crowding at univerſities in their medical purſuits, who are very deficient in this reſpect. Such ignorance leads to diſagreeable conſequences. Not habituated to the attainments of ſcience, the mind, engaged in medical ſtudies, will feel itſelf unable to comprehend the doctrines of phyſic with that eaſe and perſpicuity, with which it might have done, had it been previouſly inured to literary purſuits. Such a ſtudent

* Ferguſon's Lectures on Moral Philoſophy.

ſtudent at an univerſity will but imperfectly underſtand the public lectures, or what is worſe, be liable to miſtake them. Thus he will furniſh his mind with erroneous doctrines. The authors, which he attempts to ſtudy, he cannot ſtudy to the beſt advantage. Many indeed of the firſt repute, he cannot, from his ignorance of different languages, peruſe at all. In this ſituation, finding himſelf far ſurpaſſed in medical knowledge by his more learned companions, though of the ſame ſtanding in point of time and of no ſuperior induſtry, he begins perhaps to reflect unjuſtly on his own abilities, to ſink in his own eſtimation, and to meet his more ſucceſsful friends uneaſy and depreſſed. A ſtate like this is very unhappy, where natural genius is damped, improvements in knowledge ſlowly made, and generous minds liable to become envious and contracted.

From a defect of preliminary and ornamental learning, an evident diſadvantage will be experienced by the young practitioner, however ſkilful he may be in his profeſſion—and particularly at his firſt appearance in life. As few gentlemen are judges of medical attainments, recourſe therefore is often had to the more general topics of polite literature, in order to

convince the world of ſenſe and abilities. If any one, although he be deficient in medical knowledge, can but artfully ſucceed in this point, (I ſpeak it not without regret) mankind will generouſly give him almoſt unlimited credit for the reſt. And if the gentlemen of the faculty ſhould diſcover his ignorance in his profeſſion and publiſh it abroad, their report probably will not avail much, becauſe they are generally looked upon as an intereſted party. Such artifice, allow me to add, never ſucceeded better than in the preſent times, eſpecially when conjoined to the powerful influence of rich friends, to the alluring ſway of good breeding, and a knowledge of the world; for thus ornamented, polite literature ſhines with its fulleſt luſtre.

And indeed the young practitioner, however ſkilful he may be in his profeſſion, will find it requiſite to lay hold of every fair opportunity to promote his ſucceſs in life. For he will too often experience the cool exertions of a friend, the induſtrious activity of an enemy, a ready public belief of many falſe ill-natured reports to his prejudice, and a thoughtleſs irrational delight in ſome men to cheapen, or wantonly ſport with the reputation of one, to whom in a ſhort time they themſelves, or ſome of their friends,

friends, may perhaps owe the preſervation of their lives.—A good practical phyſician will as certainly contribute to the welfare, as a bad one will add to the miſeries of ſociety. Admitting that an unlearned practitioner may, by repeated obſervations on the methods of treatment adopted by men of abilities, acquire a tolerable knowledge of a few common diſeaſes, yet he muſt neceſſarily be very ignorant of many others, not leſs dangerous in themſelves, though of leſs frequent occurrence, in which any material miſtake may prove fatal to his patients. For no one who is poſſeſſed only of a partial knowledge of the hiſtory and cure of diſeaſes, can (not to mention ſucceſs) be ſuppoſed capable even of practiſing phyſic with ſafety.

I know that there are men of that aſpiring genius and ſteady application to buſineſs, who, notwithſtanding great ignorance in other liberal ſciences, underſtand the profeſſion of medicine in a maſterly manner; who, by ſucceſsful practice and an anxious care for the ſick, acquire a high character and juſtly deſerved fame; and, ſurmounting every preſenting obſtacle, oblige others by mere profeſſional merit to ſolicit their attendance. Such practitioners are often

a public bleſſing,—bold, obſerving, and judicious. By dedicating their labors to the ſtudy of medicine alone, they really improve their profeſſion both in juſtneſs of principle, and in ſoundneſs of practice.—Their ſucceſs in life, however, points out only the irreſiſtible force of parts and induſtry in removing all impediments to advancement; but it does not in the leaſt prove that it is not a much wiſer method in a young practitioner to prevent their occurrence, by the previous attainment of every requiſite qualification.

Nor will ſuch preliminary and ornamental ſtudies, cheerfully purſued to a juſt length, require ſo much of the ſtudent's time, as at firſt ſight one would naturally be led to ſuppoſe. Part of them will in a great meaſure have been finiſhed in his earlier days; part will be the pleaſing taſk of his youth, before medical inquiries are conſidered as his primary object; and part, cautiouſly interſperſed, will ſerve to mitigate the ſeverity of drier ſtudies, to unbend the mind, and refreſh it under the fatigue of cloſer mental exertions.

On the other hand it ought here to be obſerved, that a chief difficulty ſometimes lies in reſtraining

reſtraining within due bounds the flights of aſpiring, preſumptuous youth, ever fluctuating and unſettled; and in preventing them from purſuing the ſplendor of ornament to the neglect of their principal object. Such error is not uncommon, and whenever it occurs, it gives preſumptive proof of weakneſs of judgment, averſion to medicine, an inconſiderate indolence of diſpoſition, or too much artifice of conduct.

During my reſidence at different ſeminaries of medical inſtruction, how often have I ſeen and regretted, as a mark of a weak head, this abuſe of medical education! How much frivolous oſtentation diſplayed by ſeveral gentlemen, who, under a pretence of acquiring fine learning, have loſt in an idle chaſe after an empty ſhadow all ſight of ſubſtance in every department of literature, and exhibited themſelves at laſt in the deſpicable character of a finiſhed coxcomb, or a wrangling inſupportable pedant.

Sometimes ſuch undue attachment to ornamental learning, ſprings from a natural averſion to the Æſculapian art. Where this is the caſe, every inquiry into medicine proves a diſpleaſing taſk. The mind diſſatisfied, neceſſarily ſhuns what

what it diſlikes, and ſeeks elſewhere employment of a more engaging kind. And ſince the real antipathies of nature are ſeldom if ever perfectly overcome, ſuch a practitioner, though intereſt may prompt him to follow his profeſſion for a livelihood, will never act in that capacity from real motives of choice, or from a ſenſe of pleaſure in adminiſtering relief to diſtreſs.

If an inconſiderate indolence of diſpoſition check his deſign of acquiring medical erudition, the ſtudy of other liberal ſciences, dedicated to eaſe and leiſure, becomes in the language of an eminent ſatyriſt,

The ſpecious trifling of the mind;
Or is at beſt a ſecondary aim,
A chaſe for ſport alone.

But it ſeems that in ſome men of genius, a deſigning artifice is the primum mobile to action, and preſents itſelf as a leading principle in the explanation of their conduct. They know that the world is unable to form an accurate judgment, concerning a practitioner's real merit in his profeſſion. They plan therefore a ſcheme of acquiring fame in a readier way.

way. They ſtudy to become men of letters, men of refined taſte, but not phyſicians. Thus ſtocked with what they deem a current coin, they artfully engage with the world to eſtabliſh their character as profeſſional men. If, born under the influence of a propitious ſtar, they meet at their firſt eſſay with unmerited ſucceſs, they confidently reſt aſſured of preſerving, according to general cuſtom, their reputable names through life, and unmoleſted, of obtaining the privilege to kill or cure *ſecundum artem*, numbers of thoſe whoſe good opinion they had undeſervedly gained. They probably may injure many more than they can relieve, but this will not appear ſtrange, when we reflect, that the art of ſinking* in moſt profeſſions, and particularly in that of medicine, is confeſſedly much more perfect than its contrary, and not near ſo difficult to be obtained. Such a one will of courſe fall into ſo many errors and miſtakes in the treatment of diſeaſes, that he muſt by habit be prepared to hear them mentioned without the leaſt emotion or ſurpriſe. His countenance he muſt have taught under every diſaſter to indicate an apparent evenneſs and tranquillity of mind; and his tongue artfully

* Vid. Swift on the Bathos, or Art of Sinking, &c.

artfully to color over the failures of his judgment.

From whatever motive, whether idleneſs, ignorance, deſigning artifice, or the like, the ſtudy of any other liberal ſcience interferes too largely with that of medicine, the conſequences are always unhappy. If the eſtabliſhed practice, as ſome of theſe gentlemen ſtile it (of which they have only got a very moderate knowledge) happen to be erroneous in particular parts, they having unalterably fixed their mode of practice by that ſtandard, ſeem from their obſtinacy to think it an inſult to their pride as well as their underſtanding, to relinquiſh a recipe which has been an old offender, and ſubſtitute an uſeful remedy in its place.

Others, as empty, affect to follow a different plan. They have joined together, very unlike dextrous workmen, a few rough fragments of practice, which by chance they have incorrectly obtained; and then pleaſe to call this reſult of their patchwork, a ſyſtem of their own practice, wholly grounded on their own experience. Sueh a ſyſtem, they advance, every practitioner ought to form for himſelf. They forget that the

the moſt finiſhed and perfect ſyſtem of practice has ever been held to be the product of the united labors of men and ages. This ſyſtem indeed every practitioner of medicine, to the utmoſt of his abilities, is bound to acquire by the ſtrongeſt ties of truth, honor, and humanity.

A phyſician, as was before obſerved, ſhould only purſue preparatory and ornamental ſtudies to ſuch a length, as to furniſh his mind with the knowledge of a gentleman in polite literature, and not vainly aim at rivaling the profeſſed maſters of each ſeparate branch*. In ſuch a courſe of preliminary ſtudies, ſome parts will doubtleſs be more pleaſing, intereſting, and really uſeful than others. Different men, by their natural inclinations, will be biaſſed in their choice of different parts, though of equal importance. Here it will be both prudent and advantageous to yield a little to

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* One ſcience only will one genius fit,
So vaſt is art, ſo narrow human wit,
Not only bounded to peculiar arts,
But oft in thoſe confin'd to ſingle parts.
Like kings we loſe the conqueſt gain'd before,
By vain ambition ſtill to make them more:
Each might his ſev'ral province well command,
Would each but ſtoop to what they underſtand.
Eſſay on Criticiſm.

the dictates of nature, and indulge her in cultivating ſomewhat more cloſely, what ſhe moſt admires.

But where a phyſician does not purſue medical learning as his principal object; where his mind is not eagerly bent on obtaining the eſtabliſhed doctrines, the new diſcoveries of truth, and valid improvements in his profeſſion; where other arts and ſciences have gained his affection, and are permitted to engroſs too conſiderable a portion of his time; the public may doubtleſs complain, that ſuch a one puts an open abuſe on medicine. And when indeed we reflect on the great extent of the ſtudy of phyſic, the complaint appears juſtifiable and well-grounded. It is not intended however by this obſervation, to offer a ſingle word in favor of that narrowneſs of ſpirit in ſome people, who ſeem to think that a phyſician ſhould not, like any other gentleman, be at liberty to beſtow a leiſure-hour on any uſeful or entertaining ſubject, from which by nature and cultivation he may expect to reap a ſatisfactory pleaſure. Such a ſentiment would caſt a reflection on the judgment of its author, and offend againſt generoſity, when maliciouſly intended to derogate from deſerving merit. It

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is here meant only to blame that phyſician, who too eagerly occupied in other employments, be it philoſophy, mathematics, natural hiſtory, or any other branch of literature, neglects on his part the more neceſſary and important ſtudy of preventing and curing diſorders.

But if notwithſtanding large indulgences in ſome favorite purſuit, he endeavor to obviate by redoubled diligence this objection to his plan; he would do well to conſider, when contemplating on the cauſes of diſeaſes and the frailties of human nature, that his own body, as well as that of any other perſon, is a fit ſubject to feel the effects of a morbid power; that too ſevere exerciſe of mind, imprudently continued, may debilitate his conſtitution, and induce laſting and often irremediable complaints; and that if he impair his health, the richeſt ſoil of human happineſs, he may purchaſe even learning itſelf at too exorbitant a price, and prematurely rob ſociety of a man, whoſe greateſt fault was an activity of mind, diſproportionate to his ſtrength. It affords us however ſatisfaction to reflect, that, from the principle of ſelf-preſervation and the languid unpleaſant feelings which follow exceſs of ſtudy, nature has wiſely intended to prevent the

frequent occurrence of ſuch unfortunate incident; and that ſhe in a great meaſure ſucceeds in her deſign, unleſs where ignorance favors error, or an unbridled ambition, or exceſſive thirſt of gold, leads men to overlook her kind preſerving admonitions. The conſequences of ſuch unnatural mental fatigue are particularly unfavorable in youth, at which period of life inſtinct directs us to be active, and nature dreads a ſedentary retirement.

On the want of medical learning.

The moſt ſerious and common defect among the practitioners of medicine, is *ignorance in their profeſſion.* Inſtinct may have directed to ſome uſeful points in practice; but, unaided by experience, nature alone, however indulgent, never made a phyſician. The uſeful and valid diſcoveries in the practice of medicine may doubtleſs be attributed to time and experience; whether that experience were the reſult of chance, of raſhneſs, or deſign,—or derived from the inſtinctive actions of the brute creation. Experience taught us to cure a pleuriſy by bleeding, to alleviate pain by the anodyne power of opium, and to prevent the periodical returns

returns of an intermittent fever by the Peruvian bark.

Deficiencies in ornamental learning may prove detrimental to the practitioner himself; but ignorance in his profeſſion argues, with reſpect to others, principles both unjuſt and ungenerous. It offends true native ſenſibility to think that any part even of the brute creation, however humble, ſhould ſuffer from the art of medicine, diſturbing the wiſe and well-directed operations of nature. But how deeply does it wound a feeling mind to reflect, that the human ſpecies, being the moſt frequent object of medical practice, ſhould, from medical ignorance, unfortunately experience the greateſt ſufferings.

Under the head of preliminary knowledge, ſeveral cauſes, and ſome of them indeed of a very important nature, which tend to induce the want of medical learning, have been previouſly noticed. We have there mentioned natural incapacity, a weakly diſordered conſtitution, a ſcheming diſhoneſt artifice, an inconſiderate indolence of diſpoſition, a partiality to foreign accompliſhments, and a ſettled averſion to the ſtudy and practice of medicine.

Cool

Cool reflection, uninfluenced by art or prejudice, cannot fail to diſcover ſuch obvious ſources of medical inabilities.

Botany, *Chymiſtry*, *Anatomy*, the *Materia Medica*, the *Inſtitutions* and the *Practice* of *Medicine*, are conſidered as thoſe branches of ſcience, which are more particularly allotted to the ſtudy of the phyſician. They at once preſent to his view a ſeries of labors arduous and extenſive. To collect the mind within itſelf, to call forth every active power, and ſteadily to cultivate ſuch vaſt fields of ſcience, requires a reſolute perſeverance, an able head, and a retentive memory. It will be neceſſary for the ſtudent of medicine, within even the circle of medical literature, to make a judicious choice of thoſe parts, which are the moſt eſſential and intereſting, as his primary objects and deſerving his greateſt attention*. It will not be ſufficient

* This caution is particularly neceſſary to thoſe in whom vanity is the ruling paſſion, and who are conſequently led on to graſp at every thing without either reaſon or common ſenſe on their ſide. Theſe vain-glorious geniuſſes may read an uſeful leſſon in the following lines of Mr. Pope:

Fir'd at firſt ſight with what the muſe imparts,
In fearleſs youth we tempt the heights of arts,

While

ſufficient that he ſhould once have ſtudied and clearly underſtood thoſe firſt lines of his profeſſion. But after having weighed in the exacteſt manner his authorities for every doctrine, he ought repeatedly to re-examine this ſelect portion of his medical knowledge, and imprint it deeply on his mind, in order that he may be able on every occaſion to apply it to immediate uſe. In ſeveral other parts of the ſtudy of phyſic of leſs utility to its ultimate end, a competent knowledge of general principles only is all that is requiſite or attainable, provided leſs material purſuits be not inconſiderately preferred to thoſe of a higher nature. If inexperienced youth be too ambitious to learn every thing minutely, he will diſcover at laſt the impoſſibility of executing his weak deſigns,

While from the bounded level of our mind,
Short views we take, nor ſee the lengths behind;
But more advanc'd, behold with ſtrange ſurpriſe,
New diſtant ſcenes of endleſs ſcience riſe!
So pleas'd at firſt the tow'ring Alps we try,
Mount o'er the vales, and ſeem to tread the ſky;
Th' eternal ſnows appear already paſt,
And the firſt clouds and mountains ſeem the laſt:
But, thoſe attain'd, we tremble to ſurvey
The growing labors of the lengthen'd way,
Th' encreaſing proſpect tires our wand'ring eyes,
Hills peep o'er hills, and Alps on Alps ariſe!

ſigns, and find himſelf ignorant of many particulars relating to his profeſſion, which he ought indiſpenſably to have known, in order to practiſe phyſic with credit and ſucceſs. The memory of man, though capable of great improvements from exerciſe and culture, yet doubtleſs is limited and circumſcribed, and when loaded beyond due meaſure, it ſinks under the oppreſſive burden of learned lumber.

Botany is that ſcience which leads to the knowledge of each individual in the vegetable creation; and reduces all the varieties and ſpecies of vegetables under diſtinct orders and claſſes, by which means the memory is greatly aſſiſted, and that moſt extenſive ſubject brought within narrower bounds and conſequently rendered of much eaſier comprehenſion. For the firſt ſucceſsful attempt towards this arduous undertaking, we are indebted to the great Linneus, whoſe memory ought ever to be held in the higheſt eſtimation. The ſtudy of botany is neceſſarily comprehended in the education of a phyſician. A great part of this uſeful branch of medicine may be learned in early youth, and will afford both exerciſe and amuſement, as well as inſtruction. The finiſhing ſtroke may be given to it, during either the

firſt

firſt or ſecond year of the ſtudent's attendance at college, which ever is moſt convenient to him; but if not done the firſt, it ſhould not be delayed longer than the ſecond.

Chymiſtry is one of the moſt extenſive ſtudies in the world. It is converſant with almoſt every ſubject in nature, whether of the animal, vegetable, or mineral creation, all of which more or leſs it analizes and examines. Some parts of chymiſtry, however, fall more immediately under the conſideration of the phyſician, ſuch as ſaline ſubſtances, whether acid or alkaline—metallic bodies, and their various combinations with other matters—air and water, and their different ſtates of purity and impurity—and all mineral waters, together with the numerous ingredients with which they are impregnated. Hence may be deduced the great importance of chymiſtry in the ſtudy of phyſic; for, without a competent knowledge of it, it is impoſſible for a ſtudent, with any tolerable propriety, to enter on the cultivation of any one branch of medicine except botany and anatomy; for which reaſon indeed the ſtudy of theſe laſt may accompany that of chymiſtry.

Several parts, however, of botany and chymiſtry are as much the object of the gentleman or the naturaliſt, as the phyſician; and though they may be entertaining and ornamental, can by no means be conſidered as eſſential knowledge to a practitioner of medicine. Thoſe therefore merit in proportion a ſmaller allotment of his time and labor. But where the nature of the ſubject, whether chymical or botanical, bears ſpecial relation to the office of a phyſician, there he ought to be doubly attentive and obſerving, ſo as to ſuffer nothing of importance to eſcape his accurate obſervation. In botany he ſhould attend to the general ſtructure, arrangement, and claſſification of plants, without deſcending into ſuch minute diſquiſitions, as are only requiſite for the profeſſed followers of this curious and uſeful ſcience. In chymiſtry he ſhould acquire in particular the knowledge of thoſe parts, which lead to the eſtabliſhment of phyſiological truths, the diſcovery of pharmaceutical laws, and the compoſition of chymical remedies.

Anatomy teaches the knowledge of the figure, ſtructure, ſituation, connection, and uſes of all the parts of the human body. A deep and correct knowledge of it therefore is abſolutely neceſſary

neceſſary to the ſucceſsful practice of every branch of the healing art. Without this, it is impoſſible to underſtand the doctrines of the animal economy, either in a ſound or a morbid ſtate; or in ſuch a labyrinth of confuſion, to adminiſter, with any tolerable confidence or propriety, remedies either to palliate or remove a complaint, the ſeat and nature of which is totally unknown.

It muſt at the ſame time be obſerved that the ſtudent's attention ought to be particularly directed to the more important parts of this intereſting ſubject; and a leſs proportion of his time and labor devoted to the trivial and leſs material. I mean here more eſpecially to blame the impropriety of ſcrutinizing, with undiſcerning exactneſs, into all the little proceſſes, foramina, and depreſſions of bones—the minute diſtribution and attachments of muſcular fibres—and the very uncertain courſe and ſituation of the ſmaller blood-veſſels and nerves. I may add likewiſe the inutility of inquiring too ſcrupulouſly into the nominal learning of the anatomy of the brain. A regular detail of particulars, like thoſe, may increaſe the overgrown ſize of anatomical writings—render the ſubject more intricate, if

not more important, to beginners—and multiply the number of pompous inſignificant terms,—but it can never be made ſubſervient to any one uſeful purpoſe in practice. A ſurgeon indeed ſhould puſh his inquiries, into the minutiæ of anatomy, further than is neceſſary for a phyſician. He ſhould acquire a very correct knowledge of all thoſe parts, upon which it may be occaſionally requiſite to perform ſurgical operations, ſome of which indeed are of ſo nice and difficult a nature, that the ſucceſs of them depends in a great meaſure on the operator's anatomical ſkill. An accurate knowledge, therefore, of the ſtructure of the human body, is juſtly regarded as the firſt requiſite in the art of ſurgery. Without this, the ſurgeon, however excellently formed by nature, muſt proceed in every important operation with diffidence, uncertainty, and danger.

Students of anatomy, whoſe deſign it is to practiſe ſurgery, ought to examine attentively the appearance and ſituation of the bones, tendons, muſcles, blood-veſſels, glands, &c. which lie near the ſurface of the body; and acquire, as far as it is attainable by external examination, an accurate knowledge of what may

may not improperly be termed external anatomy. To know in this way the natural firmneſs, texture, poſition, appearance, ſize, and connection of parts in a ſound ſtate, will enable them better to aſcertain the changes, which are occaſioned either by accident or diſeaſe.

As the ſurgeon ſhould cultivate with exactneſs thoſe parts of anatomy, which are moſt frequently the ſubject of operations; ſo the phyſician ſhould be particularly attentive to have juſt notions of the ſize, ſtructure, ſituation, and connection of the viſcera or internal parts; and be able to aſcertain, as correctly as may be, the boundaries of each viſcus, what proportion of any cavity it occupies, how far it may be extended in any given direction, and what are its different ſituations in different poſitions of the body. Such inquiries, made with judgment, are admirably fitted for aſcertaining truths of the utmoſt conſequence towards the diſcovery and diſtinction of diſeaſes. From ignorance of thoſe particulars, how often are inferior practitioners confuſed, and at a loſs to find out the real ſeat and nature of diſeaſes, which an able anatomiſt would have diſcovered at once with eaſe and certainty.

If a ſtudent have frequent opportunities of being preſent at anatomical diſſections, it is perhaps adviſable to defer the peruſal of authors, till from nature he has formed ſome true and accurate notions of the human anatomy *. Afterwards the writings of the beſt anatomiſts may be ſtudied with advantage; and, along with them may be conſulted the moſt correct anatomical plates, ſuch as thoſe of Albinus, Euſtachius, &c. which will tend to throw conſiderable light upon the ſubject. They will confirm the knowledge of facts, correct miſtaken opinions, clear up matters of doubt, teach things which were not known, and enlarge the ſcope of future obſervations, as well as render them more pointed and judicious.

With reſpect to the choice of authors, it will be proper for the ſtudent to conſult the profeſſor of anatomy whom he attends, who will of courſe recommend to him the beſt and moſt perfect. At firſt, conciſe abridgments of anatomy, ſuch as thoſe of Keil, Heiſter, Cheſelden, &c. will be the propereſt, as being of more

* This was the opinion of the late eminent Dr. William Hunter, Profeſſor of Anatomy in London.—*Hunter's Lectures on Anatomy.*

more eaſy comprehenſion to beginners. Afterwards the moſt complete ſyſtems ſhould be ſtudied, which will afford the greateſt improvement. Winſlow's Anatomy is an excellent work of this kind. There are likewiſe ſeveral valuable productions on particular parts of anatomy; ſuch as Monro's Oſteology, Monro on the Lymphatics, Douglas on the Muſcles, &c. But whatever authors the profeſſor of anatomy recommends, it will be adviſable for the ſtudent to purchaſe and carefully peruſe them, as they will probably bear the neareſt reſemblance to his own method of inſtruction.

Beſides a regular attendance on anatomical lectures and a judicious peruſal of authors, it is undoubtedly requiſite for a ſtudent, who wiſhes to become a deep and correct anatomiſt, to practiſe the art of diſſection. Such an employment, though to moſt men of a very unpleaſant nature, is however of the utmoſt conſequence in the education of a ſurgeon; for without it his anatomical ſtudies cannot be completed. The improvement of anatomy and ſurgery, as well as of the practice of medicine itſelf, has been greatly retarded from the prejudices of the populace againſt the opening

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and diſſecting of dead bodies, or from the neglect of gentlemen of the faculty to profit by opportunities which have preſented themſelves. But diſſection leads ſo directly to the eaſieſt and ſureſt method of obtaining a correct knowledge of anatomy, that it ought at leaſt to be extended, if poſſible, into all the great ſeminaries of phyſic, and practiſed by ſtudents with a laudable ſpirit and emulation. The prejudices of the public againſt this neceſſary and uſeful method of acquiring anatomical knowledge are daily declining; and in a ſhort time it is to be hoped, that, for the ſake of the general good of mankind, they will be wholly removed.

The ſtudy of comparative anatomy is both pleaſant and intereſting. The mind delights to indulge in compariſons; and diſcovers a thouſand perfections in analogy. From the diſſection of other animals, various doctrines of an intricate nature relating to the human frame have been eſtabliſhed, and many important truths firſt diſcovered, and afterwards confirmed. The known laws of the circulation of the blood, the theory and proceſs of digeſtion, the doctrine of abſorption, the diſcovery of the leading functions of the nervous ſyſtem

ſyſtem reſpecting ſenſe and motion, together with many uſeful facts concerning the irritability and ſenſibility of muſcular fibres and other parts of the body, afford the ſtrongeſt proof of the utility of comparative anatomy.

On account of the intimate connection between anatomy and ſurgery, the profeſſors of the firſt have generally thought it incumbent upon them, to explain in their public lectures the leading facts and principles relative to the latter. The cuſtom is laudable, and highly advantageous; nor is it in the leaſt a difficult taſk for any one, ſkilful in anatomy, to acquire the rudiments of ſurgery. Every ſtudent of medicine, although he ſhould not intend to practiſe in the capacity of a ſurgeon, will find it his intereſt to be diligently attentive to a ſubject of ſuch undoubted utility, when learnedly diſcuſſed before him. Caſes in ſurgery, and in phyſic more ſtrictly ſo called, are often found complicated in ſuch a manner, as to render it impoſſible for any one to practiſe ſucceſsfully in the laſt, without a competent knowledge of the firſt. Nor is it conſiſtent with the dignity of a phyſician, to meet in conſultation with an experienced ſurgeon, and not be able to reaſon with him on the true ſtate

and nature of the caſe; or on attempting to give an opinion to fall, from the complication of diſeaſes, into repeated errors, and ſtand corrected by one, whoſe reſpect he ought to have commanded by intrinſic merit and extenſive erudition. Beſides, as we have weak practitioners in every branch of the healing art, knowledge of this kind may ſometimes enable a phyſician to reſcue a friend from the raſh treatment of an illiterate ſurgeon. Unforeſeen accidents too may ſometimes put it in his power, with more moderate ſkill, to give at a happy juncture of time an aſſiſtance far more effectual and ſucceſsful, than, after the delay of a few hours, the moſt experienced ſurgeon could procure. By a ſingle thought indeed of ſo learned a phyſician, life itſelf may ſometimes be preſerved.

After the ſtudy of botany, chymiſtry, and anatomy, the mind is well prepared to enter on the ſtudy of the *Materia Medica*. This branch of medicine teaches the means, which are beſt adapted to anſwer the different indications of cure that ariſe in the treatment of diſeaſes. Hence is derived its importance. In explaining the analyſis and compoſition of remedies, it is frequently neceſſary to have recourſe to chymical

chymical principles; and it is impoſſible to reaſon on the effects or operations of medicines on the human body, without a previous knowledge of its ſtructure.

The materia medica, conſidered as a branch of medicine, has often been cultivated in a very weak and negligent manner, and conſequently with little ſucceſs. It has been crowded with many inſignificant articles, which have been indiſcriminately uſed, and, from ignorance or oſtentation, undeſervedly extolled. How many thouſand remedies have been recommended to the world with all the pomp and extravagance of praiſe, that blind enthuſiaſm could dictate or artful falſehood invent; which remedies afterwards have been found by experience to be inert, noxious, or inferior to others of a ſimilar kind, previouſly and better known. The theory of the operation, and the effects of medicines, have been miſrepreſented in a variety of ways—defended by ſome, and ſtrenuouſly denied by others—embraced from opinion merely,—and rejected at laſt unſupported or confuted by facts. Strange that the only rational method of improvement ſhould have been ſo ſhamefully deſerted; and that that knowledge, which ought to have been derived

from careful attention to facts*, from repeated obſervations on nature, and intereſting experiments conducted with induſtry and judgment, ſhould reſt for its ſupport on the vague hypotheſes of idle fantaſtical men, on the wild inventions of genius miſapplied, on the artful inſinuations of a deceiver, the extravagant aſſertions of a quack, and the marvellous narratives reſulting from the credulity and ignorance of a great number of practitioners in phyſic, who value their art only becauſe it gains them a livelihood.

The virtues of remedies can never be correctly aſcertained, unleſs they are preſcribed with ſimplicity, that the changes, which are induced on the body, may be diſcovered by the accurate obſerver. Without attention to this circumſtance, our knowledge of the operations of medicines, a ſubject ſo intricate, yet ſo eſſential to practice, muſt ever remain involved in uncertainty and confuſion. The unaccountable number of ingredients which ſome practitioners have thought fit to enter into a ſingle recipe, is a diſcredit to the art. Such practice may lengthen a preſcription, pleaſe a ſhallow pompous

* Vid. Lord Bacon on the Advancement of Learning.

pompous mind, impair the efficacy of the ſeparate ingredients, conceal their powers, render them inefficacious or even injurious, but will very accidentally indeed add any thing uſeful to the compoſition, which ſome one or two of the materials did not poſſeſs in a much higher degree. But can it be deemed prudent, to adulterate uſeful remedies by the admixture of inferior, when they do not even contribute either to the elegance or utility of the compound? The art of preſcription is then moſt perfect, when it teaches us to exhibit thoſe medicines, which are beſt adapted to the cure of any complaint, in the moſt ſimple, agreeable, and efficacious forms.

In many caſes the ſalutary operation of a remedy is in great meaſure dependent on the mode of its adminiſtration. If it be at firſt given in too ſmall a doſe, its inactivity may prove the immediate cauſe of its failure. Or what is equally as diſtreſſing, uſe will ſometimes render a remedy habitual and leſs efficacious, ſo that hence the diſeaſe, acquiring ſtrength by delay, will not yield to it, though preſcribed in the moſt effective manner. But the ſame medicine, had it been judiciouſly adminiſtered at firſt in a ſufficient doſe, would have

have effected a ſpeedy cure, without any injury to the conſtitution, or unneceſſary trouble and expence to the patient.—Or a phyſician may be conſulted in ſo critical a ſituation of a diſeaſe, that if his firſt preſcriptions be too feeble and inert, the happy moments of procuring relief may be loſt in the fruitleſs expectation of their effects, and the patient ſink under his complaint without a chance of recovery.—If, on the other hand, a medicine be exhibited in too large a doſe, it will frequently diſorder the ſtomach, excite unexpected vomiting, and leave the patient after its operation unfortunately prejudiced againſt an uſeful means of cure, but juſtly diſſatisfied with unſkilful treatment. Frequently too a fault of that nature renders a neceſſary remedy injurious, tending to aggravate a diſeaſe, which in all human probability it would have alleviated or removed, had it been at firſt judiciouſly adminiſtered.

Allow me therefore to recommend to every ſtudent of medicine, a cloſe attention to this part of his ſtudies. He muſt inform himſelf correctly concerning the choice, nature, operation, and doſes of remedies in general, and as applicable to particular caſes. He ſhould be well

well inſtructed in the moſt ſucceſsful modes of exhibition, and learn the moſt ſimple, agreeable, and efficacious forms of preſcription. He ought not only to attend to theſe particulars in medicines preſcribed for adults, but alſo in thoſe for children, where it is of ſtill greater moment to conſult the taſte, and unite as much as poſſible agreeableneſs with efficacy. Without attention to knowledge of this kind, which is often greatly neglected, a young practitioner muſt unavoidably fall into miſtakes, not only dangerous to his reputation, but, what is infinitely worſe, hurtful to his patients. The doſes of medicines in the diſeaſes of infants and young children are ſo very different from thoſe of adults, that, without ſtrict attention to them, a young man will be unfit to preſcribe for the ſick with ſafety. Apothecaries too ſhould be very cautious in making up active medicines for children, ſince the leaſt error or inaccuracy may be dangerous, if not fatal.

The medical ſtudent, who deſigns to practiſe as a phyſician, ſhould ſtudy with diligence the London Diſpenſatory, and one or two of the beſt and moſt accurate Forms of Preſcriptions, publiſhed by individuals. He ſhould have a book

book likewiſe for the purpoſe of entering every uſeful and efficacious recipe, which may fall under his obſervation. He ſhould frequently taſte the medicines, which his patients are taking, whether preſcribed for them by himſelf or others. By this method he will, at the beginning of his practice, ſatisfy himſelf concerning the taſte and palatableneſs of the remedies made uſe of, and in his more advanced years, he will, as far as poſſible, be a correct judge of the goodneſs of the ingredients in any recipe, and the neatneſs and accuracy of the perſon who compounds them.—Still further to qualify himſelf in this branch of his profeſſion, it will not be improper for him to have the advantage of attendance for eight or ten months at an Apothecary's Shop, or a public Diſpenſary, by which means he will become well acquainted with the different medicines employed in practice and their mode of combination. But I confeſs myſelf to be no friend to the plan adopted by ſome, who bind a young man, intended to be a phyſician, an apprentice for four or five years to an apothecary, the greateſt part of which time may be conſidered as loſt to every valuable purpoſe of his profeſſion. By this mode of education too he is often left deficient in languages and claſſical learning,

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which is an error ſeldom to be corrected at any future period of his life.

When the ſtudent has advanced thus far in the different branches of medicine, he proceeds with every deſirable advantage to give the finiſhing ſtroke to his intended plan of education. Two of the principal objects of his ſtudies ſtill demand his cloſeſt attention, viz. *the Inſtitutions and the Practice of Medicine.* Theſe conſtitute the great ſyſtem of his art—theſe therefore he muſt ſtudy with accuracy and correctneſs. The inſtitutions of medicine, commonly termed the *Theory*, comprehend the *phyſiology* or the doctrine of the human body in a ſound ſtate, the *pathology* or the doctrine of diſeaſes, and the *therapeutics* or the general indications and means of cure. The practice of phyſic treats of ſingle complaints, and teaches us to apply general principles to particular caſes. Here are delivered the characteriſtic ſymptoms of diſeaſes, their hiſtory or deſcription, their moſt frequent complications with other diſorders, the variety of their cauſes both proximate and remote, the prognoſtic or judgment of the future event, the indications of cure, and laſtly the moſt ſucceſsful methods of treatment. Along with theſe alſo is neceſſarily

included the beſt method of preventing relapſes; which is indeed as much the object of a phyſician as any one part of the practice of phyſic. The doctrines of the theory or inſtitutions of medicine ought to be cultivated, prior to thoſe of the practice. The practice of phyſic is the ultimate object of the phyſician. To that central point, therefore, his chief labors ought to be directed.

A knowledge of anatomy, chymiſtry, and the materia medica, ſhould be attained, before the ſtudent can with any proſpect of ſucceſs turn his attention to the theory of his art. As it is highly improper for any one, without a competent knowledge of anatomy, to enter on the ſtudy of the inſtitutions of medicine, nothing but mere neceſſity ſhould ever compel a young man to engage in the latter, without a ſufficient knowledge of the former. A previous knowledge likewiſe of chymiſtry and the materia medica is of importance in the ſame point of view, but not equally ſo with that of anatomy. Of the two, a knowledge of chymiſtry is much more eſſential, than that of the materia medica, to the ſtudy of the inſtitutions of medicine. Lectures on the theory indeed may without any great inconvenience be attended

tended at one and the ſame time with thoſe of the materia medica; becauſe the therapeutics or doctrine of remedies being the laſt and ſhorteſt part of the theory, the ſtudent will conſequently have acquired enough of the one, to comprehend the rationale of the other.

When ſtudying the inſtitutions of medicine, young men would do well to attend cloſely to ſubjects of the greateſt utility and neareſt relation to practice, which ought therefore to be carefully diſtinguiſhed and ſeparated from thoſe, which ſerve merely to indulge a rambling curioſity, or gratify an idle turn of thought for empty ſpeculations. Every man's own prudence and good ſenſe muſt direct him in thoſe reſpects. I ſhall only juſt remark, that the phyſiology and pathology of the nervous ſyſtem, important ſubjects, but which have been too palpably neglected, demand the cloſeſt application. On thoſe parts of medicine in particular the late Dr. Cullen and Dr. Gregory, by unwearied induſtry, ſteady attention to nature, and great force of argument, have happily diſcovered and confirmed many important laws and intereſting facts, which tend ſucceſsfully to illuſtrate ſome very intricate doctrines of the nervous ſyſtem, and to regulate

ſeveral difficult points in practice which before were little underſtood.

The firſt Lines of Phyſiology by Dr. Haller—the Pathological Inſtitutions of Dr. Gaubius—and the Elements of Therapeutics by Dr. Duncan, are admirable abridgments of of their reſpective ſubjects, and well calculated, when carefully and repeatedly peruſed, for preparing the ſtudent to enter fully on the diſcuſſion of thoſe three principal diviſions of the theory of phyſic.

The ſtudy of the practice, when the object of purſuit, ſhould be cultivated in every part with ſpirit and judgment, but particularly labored in thoſe parts, where it treats of the diſtinction and cure of diſeaſes. Methodical Noſology, which gives ſhort but accurate definitions of all the complaints to which human nature is obnoxious, is a moſt uſeful and intereſting part of the practice of medicine. The Synopſis of Methodical Noſology, publiſhed by the late Dr. Cullen, is an excellent work of the kind. En libellum (as Boerhaave affirms of his own Aphoriſms) mole parvum, gravem materie, nec ſine labore natum. There the definitions of diſorders, or their characteriſtic ſymptoms,

ſymptoms, are delivered with a conciſe, juſt, and maſterly exactneſs; and the rules of true noſology adhered to with greater correctneſs, than has appeared in any other work of the kind, or than the preſent ſtate of phyſic had taught us to expect.

In acquiring the knowledge of the method of cure, judgment and correctneſs of genius are the firſt requiſites in a ſtudent towards juſt improvement. Practical diſtinctions and obſervations, drawn from the cauſes, duration, changes, and ſymptoms of diſorders, and made with a view to point out the propriety or impropriety of any immediate application of remedies, deſerve moſt ſerious attention. Without regard to ſuch particulars, a phyſician muſt practiſe his art at random, be conſtantly liable to deviate from every ſyſtematic rule, and to act croſs purpoſes in his unſteady methods of cure.

If a doubt occur on any point reſpecting the treatment of a diſeaſe, it is an unpardonable fault in a ſtudent to remain inactive in a ſtate of uncertainty, and not to make every neceſſary inquiry of his more aged companions, or even of the profeſſor in whoſe department it may be,

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in order to ſatisfy himſelf concerning it. We ought to take all poſſible pains, to furniſh the mind at firſt with truth. Opinions adopted on ſlight foundations are often erroneous, and of courſe have pernicious influence on our future practice. Uncorrected they may for ſome time lie dormant within us; but they will be prone at laſt on a favorable occaſion to ſtand forward, to preſent themſelves in a line with facts, to puzzle the memory then obliterated by length of time, and by ſtealing on the underſtanding, to miſlead the judgment, and gain admittance for ſound doctrines.

As we have before remarked, that anatomy can never be correctly known by any one, who does not practice the art of diſſection; ſo we may here remark with equal propriety, that the practice of phyſic, conſidered as an art, can never be attained, unleſs the ſtudent ſeize every opportunity of being himſelf in an extenſive manner attendant on the ſick. By means of public Hoſpitals and Diſpenſaries (a noble proof of Britiſh generoſity), ample proviſion is made for young men to be as much occupied in practice, as emulation, the great ſpur to improvement, ſhall prompt an active mind to deſire. A moſt diligent attendance on the ſick

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at Hoſpitals and Diſpenſaries, is of the greateſt importance in the education of a phyſician; but then more eſpecially ſo, when he viſits them along with an eminent experienced practitioner, who will act the part of a friend; or with one who engages himſelf by reading public clynical lectures, to explain the baſis and principles of his practice. If a ſtudent ſhould complain, that from this ſource he has not reaped advantage equal to his moſt ſanguine expectation, the chief cauſe of ſuch diſappointment, provided he be in health, may juſtly be attributed to his own neglect. When engaged in practice at any public charitable inſtitution, he ſhould be minutely attentive to the hiſtories of diſeaſes—examine thoſe patients who, without any detriment to themſelves, can bear to give him an account of their complaints—learn by repeated obſervations on ſimilar caſes their general habit and appearance in all their different ſtages—notice well the moſt favorable time for medical aſſiſtance—and be a ſcrupulous obſerver of thoſe changes, which may be juſtly regarded as the happy effects of his remedies. For diſeaſes ſhould not only be known when at their height or acme, but alſo as far as poſſible at their commencement and decline. Great practice and long experience, it is true, are

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neceſſary to attain to this pitch of perfection; but, difficult as it may be, it is abſolutely neceſſary to the ſucceſsful treatment of diſeaſes.

To compile an *Abridgement* of the practice of medicine conſiſting of the heads of the moſt material parts, judiciouſly ſelected from the immenſe chaos of medical matter, is an excellent employment for ſtudents, not only as being a moſt advantageous ſubject for the exerciſe of their judgment, but as often leading to a production, which may prove to themſelves of ſingular utility in their future practice. For it is the duty of a phyſician to attend to all thoſe circumſtances, which, though apparently minute, may in the end be conducive to the recovery of his patient's health. Whenever a caſe of difficulty and danger occurs, ſuch ſhort heads of practice are ſoon examined, by which means a young man will be in leſs hazard of overlooking any principal part of the cure reſpecting either regimen or medicine. The great Sydenham with this view publiſhed his *proceſſus integri*; in conſequence of which thoſe who had not then opportunity or abilities to compile a ſyllabus for themſelves, might have the benefit of one prepared to their hands.

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As cloſely connected with the practice of medicine, it is of importance for a phyſician to underſtand the leading principles of *Midwifery*. In the practice of phyſic, he will frequently find diſeaſes complicated with breeding caſes, and greatly varied and influenced by them. The diſorders of pregnant women, thoſe during delivery, and thoſe ſubſequent upon it, are often of a very ſudden and alarming nature. Here his attendance will be frequently neceſſary; for there are many practitioners in the obſtetric art, who are little qualified to act in the capacity of a phyſician. But ſurely that phyſician's practice at ſuch junctures muſt, if he be deſtitute of a competent knowledge of midwifery, be very timid and inefficacious, or raſh and dangerous. Several obſervations, pointing out to him the advantages of the ſtudy of ſurgery, are equally applicable to the preſent caſe. If a phyſician intend to practiſe midwifery himſelf, it will be incumbent upon him to engage in the ſtudy of it with the cloſeſt attention. A gentleman, learned in anatomy and well inſtructed in the ſcience of phyſic, will find himſelf able, without much difficulty, to obtain correctly the theory and practice of midwifery; an art which of late has received the greateſt improvements.

He will alſo diligently attend to the practical part of it, ſeize frequent opportunities of being himſelf converſant in it, and uſe with the utmoſt caution every judicious means of affording relief to thoſe diſtreſſes, which are peculiar to the fair ſex.

So much for the particular branches of medical learning, which are neceſſarily included in the education of a phyſician. Few, we hope, will think this plan too difficult or comprehenſive, who know the intrinſic value of health—who, on account of public ills ariſing from medical ignorance, feel within themſelves the generous emotions of diſintereſted humanity—or who are endowed with virtue, favored with opportunity, and bleſſed with abilities to render an honeſt ſervice to their country.

During the proſecution of this plan of education, *Medical Societies* eſtabliſhed on a liberal footing by a ſelect number of ſtudents, and conducted with ſpirit and judgment, are inſtitutions admirably calculated for the real improvement of youth. Here gentlemen have an opportunity of diſplaying their talents, of exerciſing them in thinking and ſpeaking on a variety of ſubjects, and of hearing on many uſe-

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ful and difficult points both of theory and practice the learned opinions and copious ſtrain of argument, with which ſome young men of genius enrich their harangues. Beſides it is occaſionally incumbent upon each of them to deliver in his turn a diſſertation on ſome medical ſubject to be canvaſſed and impugned by others, who are then to be conſidered as opponents. A ſpirited emulation is laudably promoted. When a young man ſtudies any ſubject, on which probably he may ſoon be obliged to diſpute, every uſeful fact and obſervation relative to it ſtrikes the memory with redoubled force, and leaves a more laſting impreſſion. Any gentleman, therefore, a member of ſuch an inſtitution, whoſe buſineſs is ſo planned, as to leave him a few vacant hours at his own diſpoſal, may employ them to excellent purpoſe in preparing regularly for the enſuing ſubject of debate. And permit me to adviſe him on theſe occaſions to lay aſide all baſhfulneſs and falſe modeſty, and freely to deliver his ſentiments on every ſubject, which he has carefully ſtudied and underſtands. But to harangue boldly on any topic without a ſufficient knowledge of it, proves a man to have a weak mind with great vanity, and degrades him in the eſtimation of his friends and com-

panions. For a becoming modeſty is as peculiarly amiable in youth, as a forward impertinence is diſguſting.

The greateſt *Induſtry* and *Application* is certainly due to ſo important a ſtudy as that of medicine. Sometimes indeed, though rarely, in works of taſte, where genius and imagination have full room to ſport, valuable performances of wit, humor, and invention, executed with ſpirit and judgment, have, without any very cloſe application to ſtudy, been uſhered into the world. But in ſciences of an abſtracted nature, in thoſe built on facts and obſervations alone, where fancy and imagination can give no aid at all, knowledge without induſtry can never be obtained, nor falſhood detected, nor truth diſcovered and ſupported.

To complete the education of a phyſician, *Time* alſo muſt be added to induſtry. Without the advantages of opportunity but ſmall progreſs will be made in any art like that of medicine, which is as extenſive as it is uſeful. A proper allowance of time therefore is indiſpenſably requiſite for the ſtudent of phyſic, be his abilities ever ſo promiſing. Yet how often do we ſee young men, after having reſided eight

eight or ten months at an univerſity, hurried immediately into life on their own accord, or by the ſhallow advice of impatient friends. In many caſes, imprudent ſteps of this kind can never be retrieved. In ſo ſhort a ſpace of time, they can only have had a very confuſed and ſuperficial ſurvey of the ſcience of medicine. On the contrary, if a young man who is both ſenſible and induſtrious have had proper opportunities of improvement, one cannot refrain from giving him the credit of knowledge in his profeſſion in proportion to his years. From the negligence of youth and from defect of education, we too often meet, among the practitioners of phyſic, with the unhappy combination of ignorance and old age. Before any one attempt to follow this profeſſion, he ought to be deeply inſtructed in it, and correctly acquainted with all the uſeful diſcoveries and improvements in medicine.

A young phyſician of good natural abilities and of extenſive medical erudition, is well qualified to enter on the public diſcharge of his duty. He ſhould conſider himſelf as a member in the ſociety of the world; purſue with the ſtricteſt integrity the general good of mankind; and then he may juſtly expect to

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reap the deſerved fruits of his labors. Experience to him will be a real ſource of improvement. As he advances in years, he will advance in knowledge. But when a man firſt engages in practice a novice in the profeſſion, and, unfortunately for the public, gains a reputation which he never deſerved, his experience will only convince him of his ignorance. The errors of his early practice, it is true, may in ſome caſes have warned him of the fatal conſequences of the want of medical knowledge. Happy indeed if alarmed from this cauſe, he abandon the important office of a practitioner of medicine, and content himſelf with the diſcharge of the kind duties of a nurſe. But what is very dangerous as well as too common, if, contrary to all juſt opinion of his worth, he find himſelf purſued by fame, he is naturally inclined to credit her flattering reports, to forget what he ſtill really is, and to conceit himſelf wiſe. Then he is apt to practiſe with a myſterious pomp, with a cunning cenſorious artifice, but with pitiful medical indiſcretion.

Such practitioners of medicine, as well as thoſe of an oppoſite character, having a large intercourſe with mankind, muſt unavoidably acquire,

acquire, if they do not deſpiſe them, the ceremonies of polite addreſs; and, as we have before obſerved, become inſenſibly acquainted with men, manners, and the world. The greateſt part of mankind find them their equals, if not their ſuperiors, in the common topics of converſation; and on this account are too ready (I need not ſay with what propriety) to ſuppoſe them deep indeed in their pretended object of purſuit. Fame, be it falſe or true, accumulates wealth. Riches purchaſe friends, give conſequence, and command attention. The world thus is often deceived and impoſed upon. The veſſel expands her ſails to a proſperous gale, and arrives at her wiſhed-for harbour; but, inſtead of being loaded with valuable goods, ſhe is weighed down and oppreſſed by an oſtentatious bulk of worthleſs lumber.

The education of a phyſician, although often defective, is in general much more extenſive and complete, than that of any other part of the faculty. The education of apothecaries, gentlemen to whom much practice is neceſſarily intruſted, is too often narrow and confined; and, which is a mortifying circumſtance, they themſelves frequently put to the diſagreeable neceſſity

neceſſity of being chiefly their own inſtructors, or of improving from the practice and caſual obſervations of others. The ſurgeon's education may be ſaid in general, to hold a middle place relative to his own profeſſion.

Theſe truths are advanced as naturally ariſing from the ſubject, but without the moſt diſtant deſign to offend. It is to be wiſhed that they may have their intended effect towards the advancement of medical knowledge. Mankind would ſoon be ſenſible of the advantage. The healing art, through all its departments, would be cultivated with leſs artifice, but with more induſtry and good ſenſe.

I am partial to medicine as a ſcience, and I eſteem mankind. As I value therefore the welfare of the one, I cannot but wiſh the improvement of the other. The whole claſs of medical practitioners, having ſo important a charge committed to their care, ſhould diligently qualify themſelves for their profeſſion. From a public and common cauſe, the encouragement of men without merit is to be regretted, as the bane of ſociety and the deſtruction of health. Practitioners of medicine of every deſcription ſhould conſider what degree of knowledge

knowledge they ought to poſſeſs, and mankind in general ſhould know what they have a right to expect.

On some other defects and abuses of education arising from various causes.

I. A very ſerious abuſe of education among the practitioners of medicine is the *want* of *Religious Inſtruction*, without which it is impoſſible for a young man to paſs through life with credit to himſelf or ſatisfaction to his friends. There are a thouſand temptations, to which youth is expoſed, and from which it is extremely difficult to eſcape, unleſs the mind be ſeriouſly impreſſed with juſt ſentiments of religion. If young men, laboring under this defect of education, fall into the too faſhionable but deſtructive vices of the age, ſuch as gaming, drunkenneſs, and every ſpecies of debauchery, their parents or guardians may juſtly reflect upon themſelves for ſo groſs a neglect in the diſcharge of their duty.

The impreſſions of morality, made on young minds, prove for the moſt part deep and laſting; and are the ſureſt means of preventing vicious exceſſes, which corrupt the heart, in-

duce habits of idleneſs, ſpend their fortunes, waſte their time, and ruin their health. How many hopeful young men do we daily ſee with every advantage from nature and education, who are entirely loſt to themſelves and to the world from the mere exceſs of ſenſual gratifications. What is more difficult to correct in youth, than habits of idleneſs, gaming, drunkenneſs, and debauchery? And how ſeldom does a young man, who is devoted to ſenſual indulgences, ſee his error till ruin ſtares him in the face?

But the argument, which is here urged, is more againſt the patrons and inſtructors of youth, than againſt youth itſelf. Youth is bold, thoughtleſs, and impetuous; full of ſelf-ſufficiency; fearleſs of danger; and ought therefore to be under reſtraint. If reaſon, aſſiſted with religion, do not intirely put a ſtop to the impetuoſity of youth and check its proneneſs to ſenſual pleaſures, it may at leaſt preſcribe to it bounds of moderation. And it will readily be granted, that there is a wide difference between having one's health and fortune ſomewhat injured, or totally ruined. In the laſt caſe, all hope is at an end; but in the firſt reparation may often be made, and, by

a manly ſtruggle through difficulties, he may riſe at laſt to that ſtation and dignity in life, for which he was deſigned by nature. The influence of early inſtruction in religion, though it may be leſſened by bad examples and ſtrong temptations, yet it will never be intirely loſt.

When I ſpeak of religion, I mean the *Chriſtian Religion*, *pure* and *uncorrupted*, which is indiſputably the only true religion in the world. It exalts the mind with the nobleſt ſentiments of the Deity; and of all the infinite perfections of his nature. It furniſhes us with juſt notions of his providence over all his works, without which we ſhould ſtill have been left to wander in heatheniſh darkneſs and ſuperſtition*. It preſents to our minds the trueſt ſentiments of piety, and univerſal benevolence. It ſupplies us with the moſt powerful motives to obedience. For what is more noble and highly gratifying to a rational being, than glorious proſpects of eternal happineſs†? Or (not to mention annihilation) what is more gloomy and mortifying than future puniſhment.

* Lucretii Opera.

† Cicero de Natura Deorum.

But beſides the intrinſic excellency of its doctrines and the refined purity of its morals, which of themſelves are a ſufficient proof of its truth, chriſtianity is founded on a code of external evidence, which cannot be controverted with the leaſt color of argument.

There is a *long chain* of *prophecies* concerning it, which, when duly examined and underſtood, affords an almoſt irreſiſtible proof of its truth. Many of thoſe prophecies indeed are yet fulfilling before our eyes, ſuch as the deſolate ſtate of Jeruſalem, the deſperſion of the Jews for near eighteen hundred years, the ſpreading of the goſpel over the world, and the wickedneſs and infidelity of the latter days, &c*.— There is likewiſe a *great number* of *miracles* wrought in confirmation of chriſtianity; which were not only public and in the face of day, but before the Jews, its moſt inveterate enemies, who, had there been any fallacy, would not have failed to have diſcovered and expoſed it.

Now all thoſe prophecies were accompliſhed and miracles wrought, not for any trivial purpoſe,

* Vid. Newton on the Prophecies.

poſe, nor with any ambitious views, nor to gratify idle curioſity, but to make us wiſer, better, and happier, both as to time and eternity, and that too without the leaſt proſpect of any temporal benefit to its firſt founders. On the contrary, thoſe very perſons who eſtabliſhed it, inſtead of ſeeking any advantage to themſelves, relinquiſhed every proſpect of temporal happineſs, except what aroſe from conſcious integrity; and they confirmed the truth of what they taught with the loſs of their lives. They were men of the moſt exemplary morals, who in their life and conduct had the ſtricteſt regard to truth and ſincerity, which on every occaſion they inculcated in the ſtrongeſt terms; and conſequently would be the laſt perſons in the world either to countenance diſſimulation or to propagate falſehood. They were men too who did not ſet their affections on the riches, honors, and pleaſures of this life; the emptineſs and vanity of which they fully expoſed to our view. The teſtimony of ſuch undeniable witneſſes as thoſe, is not to be ſilenced either by the ſcoffs of the unbeliever, the ridicule of fools, the bold and falſe aſſertions of the ignorant, the undermining artifice of the wicked, or the lapſed period of near eighteen hundred years.

Theſe

Theſe are facts in ſupport of Chriſtianity which are unanſwerable. They carry along with them the indubitable marks of truth, and ſuch marks too as no time can ever efface, ſo long as men continue to be endowed with the powers of reaſon. If the Goſpel be an untruth, it muſt then be admitted that piety and benevolence, the love of God and the love of our neighbour, together with all the ſocial and relative duties of Chriſtianity, have originated in their utmoſt purity from men, who had no religion, no truth, no ſincerity, and no fear of God before their eyes. It is better at once to aſſert that truth ariſes out of falſehood, ſincerity out of hypocriſy, and the love of God, and all other religious and moral duties out of atheiſm; and that men naturally put no value on their peace of mind, their temporal proſperity, or even on life itſelf. This is unavoidably, though unwillingly, the language and concluding argument of a deiſt againſt Chriſtianity, than which nothing can be more weak and abſurd*.

But

* If the reader is deſirous of being more fully ſatisfied on this ſubject, I ſhall refer him to the following excellent authors, viz. Grotius de Verit. Religion. Chriſt.—Clarke's Demonſtration of Natural and Revealed Religion—Addiſon's Evidences,

But it is not neceſſary here to enlarge on this copious and intereſting ſubject. The character of the faculty with reſpect to religion has for ſome time lain under diſgrace; and the *religio medici*, as it is generally underſtood, is intended as a term of reproach*. It is to be hoped that this

Evidences—Butler's Analogy—Jenkins on the Reaſonableneſs and Certainty of the Chriſtian Religion—Hurd on the Prophecies—Newton on the Prophecies, &c.—Along with theſe, a *careful* and *repeated peruſal* of the *New Teſtament* excites in the mind the ſtrongeſt conviction of its truth, as almoſt every page abounds with the performance of miracles, the fulfilment of prophecies, the excellency of the doctrines, the fidelity and holineſs of its firſt followers, their artleſs but faithful narratives, their zeal for the cauſe of truth, contempt of riches and honors, bold oppoſition to received maxims of the world, patient ſufferings, glorious proſpects of future happineſs, &c.

* "But there are ſome peculiar circumſtances in the profeſſion of a phyſician, which ſhould naturally diſpoſe him to look beyond the preſent ſcene of things, and engage his heart on the ſide of religion. He has many opportunities of ſeeing people, once the gay and the happy, ſunk in deep retired diſtreſs; ſometimes devoted to a certain, but painful and lingering death; ſometimes ſtruggling with bodily anguiſh, or the ſtill fiercer tortures of a diſtracted mind. Such afflictive ſcenes, one ſhould ſuppoſe, might ſoften any heart, not dead to every feeling of humanity, and make it reverence that religion which alone can ſupport the ſoul in the moſt complicated diſtreſſes—that religion, which teaches to enjoy life with chearfulneſs, and to reſign it with dignity." Vid. Dr. Gregory on the Duties of a Phyſician, page 61.

this aſperſion is falſe, and that as a body of men, we do not deſerve it; but if it be otherwiſe, it caſts the greateſt reflection both on our heads and our hearts. "Mankind may have their religious opinions diverſified by various ſuperſtitions; but religion is natural to the human mind, and every attempt to eradicate it is equally wicked and impotent*."

"The method taken by the preſent patrons of infidelity to propagate their opinions is extremely dangerous. With a matchleſs effrontery, they inſinuate, that all who avow their belief in natural or revealed religion, are either hypocrites or fools. This is attacking youth upon a very weak ſide. A young man of a high and liberal ſpirit, diſdains the idea of hypocriſy; and from an ill-judged pride, is afraid of whatever may ſubject him to ſo mean an imputation. Vanity, again, is the moſt univerſally ruling paſſion among mankind, eſpecially among young people, who commonly dread contempt above every thing, and reſent any reflection on the weakneſs and narrowneſs of their underſtandings, much more than any imputation on their principles or morals. But

* Vid. Dr. Gregory on the Duties of a Phyſician, page 59.

But I will venture to affirm, that men of the moſt enlarged, clear, and ſolid underſtandings, who have acted in life with the greateſt ſpirit, dignity, and propriety, and who have been regarded as the moſt uſeful and amiable members of ſociety, have never been the men who have openly inſulted, or inſidiouſly attempted to ridicule the principles of religion, but, on the contrary, have been its beſt and warmeſt friends"*.

II. Another abuſe of medical education takes place, when a young man is not fixed at a proper age concerning the *Profeſſion* he intends to follow; by which means ſeveral years in early life are intirely loſt. This is a matter of great moment; for even a few years thus waſted in the beginning of life are often never to be regained. As life is ſhort and the art of medicine very extenſive, it is neceſſary for a young man to employ nearly the whole of his time in the attainment of it. When I was at the univerſity of Edinburgh, there were ſeveral gentlemen, who had ſpent ſome years in other profeſſions or employments, before they began with the ſtudy of medicine. Some, for example, had been at firſt deſigned for the

* Vid. Dr. Gregory on the Duties of a Phyſician, page 61.

church, ſome had entered on trade, ſome had been occupied in farming, and others had paſt ſeveral years in a vague irreſolute ſtate, having the appearance of an employment, but doing little or nothing to the purpoſe.

Not only with regard to his profeſſion in general, but even of the different branches of the healing art, a perſon ought to determine what particular branch he deſigns to follow. Some young men intend at firſt to be apothecaries, ſome to be ſurgeons, and at laſt become phyſicians. One who is deſigned to be a phyſician, ought not (as we have already obſerved) to loſe time by being bound an apprentice to an apothecary or ſurgeon; but ſhould have a run only for a few months in an apothecary's ſhop, or at an hoſpital or public diſpenſary. In like manner a young man, who for ſeveral years attends chiefly to the operations of ſurgery, is loſing time, if he means afterwards to practiſe ſolely in the capacity of a phyſician. To have a general knowledge of ſurgery is neceſſary for a phyſician; but to devote too much time to it is certainly improper, as it prevents him from acquiring that knowledge in the hiſtory, cauſes, and cure of diſeaſes, which is eſſential to the ſucceſsful practice

practice of phyſic. To learn the minutiæ reſpecting the operations of ſurgery is an arduous undertaking, and requires ſeveral years cloſe application; and after all a man may be an excellent ſurgeon and a very bad phyſician. I do not mean to ſay that ſuch a one will be totally ignorant of phyſic—that he will not be able to cure an ague, or to preſcribe the bark in a putrid fever, or bleeding in a pleuriſy;—but what I would infer is, that if a caſe of difficulty ſhould fall under his care, he may be at a loſs to diſcriminate the ſymptoms of it with accuracy, ſo as to form a juſt diagnoſtic; in conſequence of which his practice will of courſe be vague and at random.—If on the other hand a young man firſt enter on the ſtudy of phyſic with a view to be a phyſician, and then change his mind and follow the profeſſion of a ſurgeon, a like diſadvantage will occur. For he may then be a very good phyſician, and have a ſound judgment concerning the propriety or impropriety of a ſurgical operation, and yet be very deficient in regard to the eaſieſt and moſt ſucceſsful method of performing it.

To avoid ſuch errors and miſtakes as thoſe, it is proper for every one to decide at firſt with ſteadineſs concerning his profeſſion, and then with

diligence and perſeverance to direct his ſtudies accordingly. By this method much valuable time will be ſaved, and the whole of his labors turned on his principal employment; which will conſequently be followed to the greateſt advantage, and brought to the higheſt perfection.

III. Another point to be conſidered is the errors committed by youth from *too great Indulgence* in *Recreations*, ſuch as *muſic*, *drawing*, *dancing*, *fencing*, *cards*, *dice*, *billiards*, &c. As the ſtudy of medicine requires ſuch cloſe application, there is of courſe but little opportunity for recreations, however pleaſing or innocent, and eſpecially for thoſe which are of a ſedentary nature. Whatever time a young man may have to ſpare from his ſtudies, he ought to employ it in ſome active exerciſe, which may contribute both to the health of his body and the vigor of his mind.

Muſic in itſelf is an innocent and delightful entertainment; but to purſue it to any great extent ſo as to become a proficient in it, is not a deſirable employment for a medical ſtudent. The great Locke is of opinion, that a young man engaged in a liberal profeſſion ought

ought not to learn muſic, leſt it ſhould draw him too much into company, and by captivating the mind and diſpoſing it to pleaſure and diſſipation, turn it from more important purſuits. If a young gentleman be able to ſing a good ſong, it may prove a misfortune to him; for he will be continually invited to entertainments both public and private, in conſequence of which he will not only neglect the ſtudy of medicine, but acquire habits of intemperance, than which nothing is more ſtupifying to the mind or prejudicial to health. Beſides thoſe general bad effects, he will be liable to be introduced into company, which will neither add to his character as a gentleman, nor forward his improvements in knowledge.

Drawing and *painting* are very ſedentary employments, and therefore not proper to be much cultivated by a ſtudent of medicine. But a moderate knowledge of the principles and practice of drawing may be uſeful in the ſtudy of anatomy, chymiſtry, botany, &c. for the purpoſe of ſketching out any particular ſubject; by which means a much clearer idea of it may be conveyed to the mind, than by a long and labored verbal deſcription. Anatomical preparations, chymical apparatuſſes,

or

or any new diſcoveries in the vegetable creation, may often be quickly and correctly illuſtrated by drawings.

Dancing and *fencing*, to a moderate degree, are active exerciſes, and may be looked upon as neceſſary to give a young man a firm, eaſy, and genteel carriage; but they muſt only be made uſe of as recreations.

Cards, *dice*, *cheſs*, *billiards*, &c. ought not in a medical ſtudent to engroſs any conſiderable portion of his time. A moderate knowledge of whiſt, quadrille, piquet, and back-gammon, acquired in good company, may, according to the preſent reigning faſhion of the times, be thought to be in ſome meaſure neceſſary*. But a critical and exact knowledge of them is by no

* Whiſt and quadrille are the beſt and moſt uſeful games. Piquet and back-gammon are the next. Cheſs is too deep a ſtudy for a man of buſineſs. But no game whatever ſhould on any account engroſs any part of the morning; which ought to be ſolely devoted to ſtudy. All mere games of chance, ſuch as vingt-une, hazard, &c. ought not to be learned. Billiards are a pleaſing game, and not a ſedentary one; but an inſuperable objection againſt it is, that it is played at in a morning as well as an evening, and is never an entertainment of mixed companies of ladies and gentlemen, except accidentally in great and opulent families.

no means deſirable, as it would not repay the time and trouble required to attain it, and would certainly be attended with the loſs of more important accompliſhments.

Beſides, an ambition to excel in thoſe amuſements might lead ultimately to the *practice* of *gaming*, which is one of the moſt dangerous, as well as moſt faſhionable vices of the age. How many opulent and reſpectable families have of late years been either greatly injured or totally ruined by gaming. There is no one vice, which is more captivating to youth, or more difficult to be overcome. It corrupts the heart, and deſtroys all feeling and ſenſibility. To ſee an intimate friend and companion in diſtreſs from an unfortunate run at play, excites only a falſe and pretended compaſſion in the breaſt of that man, who has been the immediate cauſe of his miſery. To take many unfair advantages of the young and unſuſpicious, is the daily and hourly practice of gameſters.

A young man, who will venture deeply at a gaming-table, has little or no chance of ſucceſs in the company of thoſe, who have had long experience at the buſineſs, and ſerved to it perhaps ſeveral apprenticeſhips. For this reaſon

ſon he ſhould make it a fixed invariable rule never to riſk at play any ſum of money, the loſs of which might give him a moment's uneaſineſs. Notwithſtanding the flattery of his opponents, (with which they will not fail chearfully and liberally to compliment him for the ſake of his money,) he ſhould be doubtful of his own abilities, and readily ſubmit to all experienced and profeſſed maſters in the art;—otherwiſe he will certainly repent of his preſumption, when it may be too late to remedy his misfortunes. Several notorious gameſters, who have accidentally gained admittance among gentlemen of character and reputation, have been found to practiſe arts and methods of deception, which are a diſgrace to human nature, and againſt which it is impoſſible at play for an honeſt man to ſecure his property. To enter here into a particular detail of ſuch baſe chicaneries, would be foreign to the ſubject. But if any young man, who has been previouſly warned by his friends and conſequently is fully aware of the undue advantages taken by gameſters, will be ſo weak and fooliſh as to riſk his fortune at play, he deſerves to experience, as he moſt certainly will, the fatal effects of his folly. Gaming, like gluttony, is a ſcourge in the hands of providence, and the

puniſhment

puniſhment inflicted by it is often grievous and dreadful indeed.

A young man of a liberal education ſhould endeavor always to keep in mixed companies of ladies and gentlemen, and there amuſe himſelf for a moderate ſtake only; and never be induced, out of baſhfulneſs or falſe modeſty, to riſk with either ſex more money than he at firſt intended. Great firmneſs and reſolution of mind is required to put in practice this ſafe and admirable rule; but it is abſolutely neceſſary to his ſucceſs in life. All play too at late hours ſhould be reſolutely avoided; as it not only endangers a man's fortune, but injures his reputation, impairs his health, waſtes his time, deſtroys his peace of mind, and diſturbs his reſt. For gaming beyond any thing agitates the whole frame, ſours the temper, and without any apparent cauſe renders men ſullen, paſſionate, and diſagreeable in their own families.

IV. Another abuſe of medical education is the attendance on *Public Lectures* which are *imperfect* and *incorrect*, and where the ſtudent of courſe can have no confidence in the doctrines delivered, or even in the facts adduced in ſup-

port of them. In this caſe there is either a total loſs of time, where no attention is paid by the ſtudent; or elſe there is danger of his imbibing falſe and contradictory notions both in theory and in practice, than which nothing is more prejudicial to young minds.

To avoid this defect of education, the greateſt care and circumſpection in the directors of univerſities is neceſſary in the election of the profeſſors of medicine. Neighbouring nations, and diſtant kingdoms are often intereſted in the choice. When the fountain-head is impure, the ſtreams which flow from it cannot be expected to be clear.

The election of a profeſſor ſhould be conducted without partiality and without prejudice. Merit alone ought to determine the choice, which ſhould be made by men of ſenſe, probity, and judgment. A profeſſor, thus elected to the chair, will ſtand the faireſt chance to fill it with honor to himſelf and advantage to his fellow-creatures. He will, if an honeſt worthy man, feel himſelf above all the low quirks of deceit. He will never forget that he is an inſtructor of youth, but of youth to whom in a few years the care of the health of nations muſt be committed

committed. He will diſdain the futile attempt of eſtabliſhing his character by the ſolemnity of a look, the majeſty of deportment, or the pathetic language of an artful inſinuating tongue. He will diſdain to raiſe his reputation as a teacher by erecting a ſyſtem, invented through deceit and ſupported by falſehood; the fallacy and futility of which young minds are the leaſt capable of detecting, till age, by unhappy experience, brings to their view unſuſpected truths. He will know that, ſooner or later, ſuch vileneſs of character will be detected, and expoſed to contempt with indignation. Anxious to improve his profeſſion, he will induſtriouſly exert himſelf in the honorable diſcharge of his duty; and having dignity without pride, deliver the ſound doctrines of medicine with ſpirit, veracity, and judgment. Such is the wiſdom of a neighbouring nation in the choice of their profeſſors; and long may that univerſity (under whoſe auſpices I had the happineſs to be inſtructed) be the admiration of the world, and continue to do honor to the Britiſh realms.

V. An *irreſiſtible attachment* to the *Works* of the *Antients*, has greatly retarded the progreſs of medical ſcience. Hence the neceſſity of

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cautioning youth againſt this error. As medicine is the art of preſerving health and curing diſeaſes, its origin, we muſt ſuppoſe, was nearly coeval with that of mankind. Pain and ſickneſs would naturally excite a feeling rational creature to ſeek for relief, wherever there was barely a probability of obtaining it. Neceſſity would even compel men to the trial of remedies at random. In this rude and uncultivated ſtate of our profeſſion, errors, from the abſolute nature of things, muſt have been numerous and unavoidable. Anatomy was ſcarcely begun to be ſtudied. The laws of the animal economy were little underſtood. There were no accurate hiſtories of diſeaſes, and conſequently could be no regular conſiſtent practice of phyſic.

Hippocrates, the great father and founder of medicine, is the firſt upon record, who has given us any ſigns of a faint glimmering of light, which had with difficulty penetrated through the dark cloud that hung around the ſcience of medicine. Galen was his noted admirer and learned commentator. Theſe great men in all ſucceeding ages have been, and ſtill ought to be held, in high eſteem and veneration. They purſued the ſtudy of medicine

dicine on juſt principles, and prudently endeavored to extend their knowledge by facts, deduced from a careful obſervation of nature. They always proved themſelves poſſeſſed of a free and liberal ſpirit of inquiry.

But waving all panegyric in favor of our anceſtors, how laviſh ought we to be in praiſe of their ſucceſſors, who deſerted that admirable method of cultivating medicine, by which they with ſo much ſucceſs had made the firſt advances to improvement, and by which alone real improvement could ever be made? For many centuries after the time of Galen, during that dark period of general ignorance and ſuperſtition which overſpread the world, we have no account of any conſiderable progreſs made in the ſcience of medicine. The whole art ſeemed at a ſtand. The phyſicians of thoſe days vainly thought their profeſſion at a high pitch of perfection; that Hippocrates ſcarce could err, or Galen be miſtaken. They waſted therefore their time in compiling voluminous commentaries upon their works—often enlarging on obvious truths—often explaining away their meaning,—and, where a paſſage was difficult, adding to its obſcurity by the miſt with which they ingeniouſly

geniouſly ſurrounded it. In ſhort they ſo tortured every Hippocratic word, that future ages cannot read their works without dropping a tear.

Among many eminent phyſicians of modern times, this error has been very prevalent. Too much deference has been paid to antient medicine; and too much authority given to antient opinions. The learned Boerhaave ſeems not to have ſteered clear of this imputation. Baron Van Swieten frequently attempts to confirm his doctrines, by quotations from the writings of Hippocrates. I confeſs for my own part that I perfectly agree on this ſubject with the late Dr. Cullen, that thoſe phyſicians, who freely quote Hippocrates and Galen to eſtabliſh their opinions, give us often a better proof of their reading than of their judgment. I do not mean to depreciate, by what is here ſaid, the value of antient writings, venerable indeed for their antiquity; but only to point out the weakneſs of that pedantic pride of ſome modern phyſicians, who cite them on many occaſions with much more freedom than juſtneſs; and often ſtrain their expreſſions to ſupport opinions which they were never intended to do. We can however obſerve with

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ſecret pleaſure, that in the preſent age men begin to ſee through the folly of ſuch empty oſtentation, and to treat it with that neglect which it ſo juſtly deſerves.

VI. In the cure of diſeaſes, *too much* or *too little* may be left to the *Powers* of *Nature*. Each extreme is faulty. Every experienced phyſician is well acquainted with what are commonly termed the *vires naturæ medicatrices*, ſo celebrated in the ſchools of medicine. He readily acknowledges, that the wiſe Creator has endowed animal bodies with an inherent power; by which, when they become diſeaſed, an effort is made in the conſtitution to reſtore it to a ſtate of health. Some animals may poſſeſs this power in greater perfection than man; but man enjoys it in a high degree. It is a low artifice in ſome phyſicians to be always attempting to invalidate the effects of this wiſe gift of Providence, ſo admirably adapted to the preſervation of animal life. But it proves a real injury to a ſick perſon, when the practitioner, ignorantly miſtaking the ſalutary efforts of nature for unfavorable ſymptoms of the diſeaſe, interrupts or deſtroys them by an unſeaſonable uſe of remedies at a time, when in fact he ought only to have cautiouſly ſuperintended them—to have left them

them undiſturbed when proceeding proſperouſly—to have gently aſſiſted them, when languid—or when violent, to have moderated them with judgment. Nor is this the worſt effect of ignorance; for there are extant indeed too many unfortunate caſes, where the *vires naturæ medicatrices* have been ſo groſly miſtaken and unſkilfully interrupted, as to be really converted into *vires nocentes*. I ſhall be obliged, in my *Obſervations* on the *Abuſe* of *Medicine*, to adduce too many ſad examples, which will be in confirmation of what is here aſſerted.—Hence the neceſſity of inſtructing young men in this important part of their profeſſion, without which they will be in continual danger of increaſing inſtead of curing diſeaſes.

It is a ſtrong convincing proof of genius and medical abilities in a phyſician, to be able acutely and accurately to draw the juſt line of diſtinction between the active auxiliary ſymptoms, and thoſe which are merely morbid, indicative only of the violence of the diſeaſe and the weak efforts of ſinking nature.

If a practitioner, not knowing as he ought the wonderful contrivance diſplayed in the ſtructure of

of the human frame, could as vainly as falſely perſuade himſelf to believe, that every happy change in a diſeaſe were juſtly to be attributed to the efficacy of his medicines, and every contrary turn to the violence or malignity of the complaint; ſuch a one, from his boaſted neglect of nature, would be very liable to counteract her wiſe operations and diſturb her healing efforts, which (it was his duty to have known) can never be equalled by an imitative art. Where ignorance in the profeſſion is the cauſe of any errors of this kind, one cannot pretend to fix limits to the miſchief which may enſue.

Nor is that practitioner wiſe who, faithleſs without reaſon of the powers of his art, aſcribes every change in a diſorder to the operations of nature, which he therefore dignifies with the title of a *Divinity*. The practice of ſuch a perſon cannot but be weak and irreſolute, and his remedies of courſe inert and uſeleſs; becauſe his principles naturally incline him to reject the moſt powerful and efficacious means of cure, as being too great diſturbers of his *divine Archeus*. A practitioner, embracing that opinion, is unable in a dangerous caſe to purſue with a ſteady manly boldneſs that method of

treatment, on the effects of which his almoſt hopeleſs patient muſt ſolely depend for his laſt chance of recovery. Such a phyſician would do well to adopt a different opinion, which is much better eſtabliſhed in fact*; and learn that the efforts of nature, which are for the moſt part ſalutary, may be and often are erroneous in many reſpects. Unhappy at leaſt for his patients, if experience do not ſoon convince him of this important truth, and remove all ill-grounded prejudices, which he may have blindly entertained againſt it.

Let us ſuppoſe for a moment ſuch an uſeleſs obſerver beſide the bed of a plethoric man, laboring under an high inflammatory fever; and although the exceſs of ſtimulant power ariſe to ſuch a height as to threaten an approaching phrenſy, that he timidly waits in the vain expectation of a critical ſweat or the diſcharge of a few drops of blood from the noſe, till in a very ſhort time the brain or its membranes are inflamed, and the complaint entirely beyond the reach of art. On the contrary two or three timely and effectual bleedings might in all human probability have warded off the fatal

* Vid. Gaubius's Pathological Inſtitutions, § 104.

fatal blow, and (to uſe the language of an eminent phyſician) have re-eſtabliſhed his patient's health, *tuto, cito, & jucunde**. Dr. Stahl has carried the doctrine of the *autocrateia*, or the *natura morborum medicatrix*, further than moſt other writers. He has puſhed it indeed to ſuch a length, as greatly to injure a ſyſtem of medicine, which in many other reſpects is truly valuable. Hence his followers are remarkable for the feebleneſs of their practice, neglecting through needleſs apprehenſions the uſe of opium, antimony, the peruvian bark, and many other of our moſt powerful remedies.—Several great men recorded in the annals of medicine, founders of particular ſects, have like Dr. Stahl been thought juſtly chargeable with timidity; which indeed is a fault not unfrequent in the preſent age, ſometimes an effect of conſtitution merely, but oftener of ignorance combined with humanity.

VII. It is a ſerious error in the education of a young practitioner, not to be properly informed concerning the *Nature* and *Advantages* of *Conſultations* in all difficult and dangerous caſes. From ignorance in this particular, many learned and worthy characters are at their firſt entrance on life injured and loſt to the

* Celſus.

world, in conſequence of ſome ſudden and unfavorable termination of a diſeaſe, the difficulty and danger of which they were not aware of. Here their reputation might have remained unſullied, if an able and experienced phyſician had been called in to their aſſiſtance; for timely advice and judicious practice might perhaps have preſerved the life of the patient, or had the caſe proved incurable or even fatal, no blame had then fallen on the practitioner who was firſt conſulted.

On the other hand the bad effects of one great and notorious error of practice, eſpecially if in a patient of diſtinction, are often not to be obviated by ten years cloſe application to buſineſs, and in ſome inſtances not by the hard labor of a whole life. Inexperienced practitioners muſt certainly be ignorant of a great number of caſes, the nature and cure of which nothing but time and obſervation can elucidate. And yet how often do we find, in the moſt alarming caſes, young men of moderate parts the moſt arrogant and ſelf-ſufficient; and at the ſame time daily committing the moſt egregious and often fatal blunders? Others of a contrary character, who are poſſeſſed of becoming modeſty and know the great importance

portance of experience to the ſucceſsful treatment of diſeaſes, are cautious and conſequently ſafe in their practice; and by purſuing a different line of conduct, ſhun the errors and miſtakes of thoſe, who are averſe to conſultations. But if the poſitive and ſelf-conceited perſon think, that, by taking upon himſelf the whole management of a difficult and dangerous diſeaſe, he is doing his patient a kindneſs, the event may too often convince him that he is groſly miſtaken.

It is unhappy for mankind to over-rate in idea either the ſkill of the phyſician, or the powers of his art. In both caſes the diſappointments, which muſt unavoidably follow, will often be accompanied with diſſatisfaction. That phyſician ought to be eſteemed among the firſt and beſt, not who vainly boaſts of infallibility, but whoſe judgment is the moſt correct and extenſive, and whoſe practice is the moſt judicious and ſucceſsful. The propriety and even neceſſity of frequent conſultations among phyſicians in obſcure and dangerous complaints, is clear and ſelf-evident. A practitioner of ordinary abilities may ſometimes ſuggeſt a valuable hint to the moſt able head. This is aſſerted as matter of fact, although

although it is well known that the pride of pre-eminence will on ſuch occaſions diſpoſe ambitious minds to prevaricate, to receive the hint with cold indifference, and ſuggeſt ſophiſtical doubts, but ſeldom to acknowledge with candor the advantages which they may have received from the obſervations of another. If ſuperiors even may profit from hints given by inferiors, what advantage, when the caſe is reverſed, may not inferiors expect to reap from the judgment of ſuperiors? How often may they be deterred from executing with raſhneſs, what they had planned in ignorance.

But though the propriety of the meaſure be ſo obvious, how averſe do we find many practitioners to adopt it, and declare their opinion openly in its favor by having frequent recourſe to conſultations? Gentlemen of the faculty of every rank ſhould be deſirous of conferring together in all critical and dangerous caſes, and particularly whenever it may be deemed adviſable to make immediate application of ſome powerful, but hazardous means of relief.

To what ſhall we attribute this ſeeming averſeneſs of practitioners to conſult with one another?

another? Are they ſuſpicious without cauſe of not being treated with candor and honor? Do they think it will caſt a reflection upon their judgment? Have they been guilty of ſome error in practice, which they are afraid to have canvaſſed and examined? Or are they ſo covetous of fame, as not to bear without uneaſineſs the thoughts of a rival to ſhare their fancied ſucceſs? If theſe or ſuch like be their diſſuaſive motives, they are very weak and inconcluſive indeed. This is an undoubted truth, that the ableſt practitioners, thoſe whoſe treatment of diſeaſes will beſt bear to be examined, are generally the moſt deſirous of holding conſultations. Young practitioners in particular, who neglect to conſult with others of greater experience and authority, if not of ſuperior judgment, are very liable from a few unſucceſsful caſes to be materially injured in their reputation, although their treatment of them were not blameable in any reſpect.

Whenever a conſultation may be thought neceſſary, it is a dangerous but frequent error to delay it too long, till there is no opportunity left of rendering any real ſervice to the patient. Often too when a difficulty occurs, and a point of practice ariſes of great moment to be diſcuſſed,

cuſſed, an ignorant practitioner will firſt decide abſolutely concerning it, and afterwards call a conſultation, when the critical moment of ſucceſs is paſt. In this melancholy ſituation of the patient, the conſulting phyſician is in a diſagreeable dilemma; for ſhould he find on inquiry any groſs neglect or raſh conduct of the preceeding practitioner, it is difficult for him to act properly in regard to both parties. If he expoſe the errors of the one, he may be thought to be uncandid and ſevere; and if he conceal them by aſſerting a falſehood, another perſon of the ſame family may afterwards ſuffer from the like practice. Candor, humanity, and good ſenſe in theſe caſes muſt determine according to circumſtances the right line of conduct, which ought invariably to be purſued.

Frequent conſultations on proper occaſions, where practitioners may deliver their ſentiments with freedom, and be heard with candid impartiality, will ever be found creditable to themſelves by preventing all unjuſt aſperſions on their characters, and beneficial to the public by providing moſt effectually for the health and ſafety of individuals. Much weak and raſh practice would by this means be happily avoided,

avoided, and ſafe and efficacious treatment adopted in its ſtead. The cuſtoms of places muſt determine the decorum of conſultations. One would fain hope too that honor and honeſty would forbid that abuſe of them, which indeed has too often manifeſted itſelf to ſuch a degree, as greatly to defeat the principal end of the inſtitution.

But notwithſtanding the many obvious advantages of conſultations among men of liberality and honor, yet where phyſicians are unprincipled, jealous of each other, and not on good terms, the beneficial effects of them are generally fruſtrated. In ſuch caſes, a conſultation is often injurious to the patient, and proves a hinderance to his recovery. Each phyſician is then afraid of the other; and if one propoſe a probable but powerful means of relief, the other will ſometimes oppoſe it immediately through envy, or if the caſe end unfavorably, he will be the firſt to aſcribe the failure of ſucceſs to the medicine recommended by his opponent. Theſe conſiderations render phyſicians ſo ſuſpicious of each other, that their practice is often weak and inefficacious; and conſequently there is danger leſt the patient ſhould be loſt for want of proper me-

dical aſſiſtance. Beſides, where phyſicians of this character are conſulted together, if they do not feel themſelves at liberty to act according to their judgment, and have no fear of any ſeparate blame falling upon themſelves, neither of them may be anxious to a proper degree after the ſucceſs of the practice. In all ſuch unpleaſant ſituations, one able and experienced phyſician is undoubtedly better alone, than when joined in conſultation, where there is no candor, no confidence, no honor—and where each ſuſpecting the other, prevents any thing effectual from being done for the recovery of the patient's health. This is a ſtatement of facts, which is a diſgrace to the faculty, but unfortunately it is in too many inſtances confirmed in truth.

VIII. *Sects* and *Diviſions* among phyſicians have ever proved of pernicious conſequence to the cauſe of medicine. They have promoted a ſpirit of contradiction, and prevented a free communication of knowledge. They have diſgraced truth itſelf, by victoriouſly adopting falſehood. The imagination, fired by oppoſition, has often invented facts which experience was unable to furniſh. The mind, meanly ſtruggling in diſpute for conqueſt only, is in general too much prejudiced to ſubmit to the

the plaineſt evidence of truth, where ſophiſtry and falſehood are able to ſtagger its authority. But at no age are we more apt to be led into this error than in youth, when the paſſions and affections are warm and lively. Nothing can be a greater interruption to the progreſs of his medical ſtudies, than for a young man to be actuated by the ſpirit of a party. He is then bound down by laws and rules preſcribed by others, from which he is not at liberty to depart, without drawing upon himſelf their warmeſt reſentment. In this ſituation he muſt abandon the uſe of his reaſon and underſtanding, unleſs when he is exerting himſelf in the ſupport of the tenets of his party, whether thoſe tenets be true or falſe.

Hence the leaders of ſects, inflamed with the lawleſs ſpirit of oppoſition, have ſometimes been hurried away by their ungovernable paſſions, beyond all bounds of common decency and diſcretion. Out of many notorious examples of this nature, we may mention the diſtinguiſhed fury of Paracelſus. He was a man of ſenſe, but poſſeſſed of an inſupportable ſhare of pride and ambition. He unhappily involved himſelf in all the difficulties and troubles of a faction. He formed a party of em-

pirics in oppoſition to the regular faculty, and taught his followers that both the doctrines and practice of his opponents were abſurd. He had a particular averſion to the ſtudy of Galen and Hippocrates, whoſe writings, as uſeleſs lumber, he ordered to be publickly burnt. Though it may be ſaid in favor of this as well as other ſects of empirics, that they earneſtly ſought after efficacious remedies, and employed them with ſteadineſs and reſolution, yet it may alſo be obſerved, not a little to the diſcredit of themſelves and the abuſe of their profeſſion, that they neglected the ſtudy of anatomy and the hiſtories of diſeaſes.

From this cauſe too, different branches of the healing art, which ought undoubtedly to have been cultivated together, have been ſtudied ſeparately by different ſects, to the great abuſe of the free liberty of inquiry, and with ſignal hinderance to the progreſs of medicine. Hence the antient noted diviſion of phyſicians into Galeniſts and Chymiſts, and the wild extravagant diſputes which long ſubſiſted between them. The Chymiſts were for the moſt part a bold illiterate ſet, eager in the purſuit of active remedies. The Galeniſts were in general more learned, their practice ſafer,

ſafer, but leſs efficacious. The very imperfect ſtate of their theory evidently tended to induce timidity. But chymiſtry furniſhes the phyſician with ſo many of his moſt valuable remedies, that it is indiſputably neceſſary in his education. Hence a proof of the penetration and ſagacity of the great Boerhaave, who happily put a period to this abſurd diviſion, and afterwards made rapid progreſs in the improvement of medicine, by uniting the labors of the two contending parties.

The free ſpirit of inquiry among the learned, bears ſome reſemblance to the ſpirit of true liberty among a free people. If the ſpirit of liberty ever degenerate into the ſervile intereſted ſpirit of a faction, the public good muſt undoubtedly ſuffer. In like manner the cauſe of learning will ever be injured, when the free liberty of inquiry degenerates into the mean liberties of a ſect.

IX. The *frequent Practice* among the faculty of vending *Noſtrums*, or *Quack-medicines* of no ſuperior virtue to others of a like nature in common uſe, argues in general a narrow contracted mind, and is a diſcredit to the profeſſion. On the contrary, if a noſtrum be really

really a new and important diſcovery, and its virtues fully eſtabliſhed by experience, it ought to be made public for the general good of ſociety. And if the practitioner who firſt diſcovered it be in that ſtation of life, as to be unwilling to divulge his noſtrum without a recompenſe, he ſhould make his ſituation known, prove indiſputably the real and ſuperior efficacy of his medicine, and then he would certainly be intitled to a public reward, for the diſcovery of a remedy of public utility.

This is the line of conduct which ought to be purſued by men of liberal principles. In every other point of view, the conduct of practitioners reſpecting noſtrums is for the moſt part reprehenſible. For if the medicine poſſeſs little or no virtue, the boaſted account of its efficacy in the removal of diſorders is a falſehood. If it be a medicine in common uſe and of undoubted efficacy, but in a diſguiſed adulterated ſtate, ſuch a practice is an impoſition upon the public. Hence the neceſſity of guarding young people againſt all ſuch low and illiberal conduct; and if once they imbibe juſt notions on the ſubject, there will be little or no danger afterwards of their falling into this error.

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With reſpect to the public it may be obſerved, that mankind are too much diſpoſed to be ſeverely harſh in their judgment of medical characters from ſingle inſtances of unſucceſsful practice. Miſtaking their true intereſt, they are likewiſe too ready to load a practitioner with unmerited praiſe from a ſingle caſe of unexpected ſucceſs. By ſuch procedure they often virtually inflict a heavy puniſhment upon themſelves, by unjuſtly degrading the character of learned and wantonly extolling that of illiterate men. A practitioner, who pretends to be poſſeſſed of a noſtrum for the cure of diſeaſes, throws out an artificial bait, which men ſeize with eagerneſs, and by which they are often unfortunately enſnared.

Upon the bare mention of a noſtrum, many, ſuppoſing themſelves afflicted with one or other of thoſe numerous complaints for which it is pretended to be an infallible cure, are willing, provided the vender be a man of ſenſe and apparent veracity, to make trial of his medicine. In ſome, the diſorder, ſpecified to be cured, is at once obvious and incurable.—In ſome, nature of herſelf, either by ſudden or by ſlow ſucceſsful efforts, removes the complaint. The diſeaſe frequently is miſtaken, not being what

what it is ſuppoſed; and in this caſe a common cold, from the apprehenſions of the patient and the ſophiſtry of the practitioner, has often been ſucceſsfully treated under the exaggerated deſcription of a deep pulmonary conſumption.—The crafty empiric may ſometimes adminiſter his noſtrum in conjunction with valid eſtabliſhed means of cure. Here his remedy may acquire a reputation by report, which it never merited in fact.—Some patients, though they may have received no benefit from the boaſted noſtrum of the empiric, may yet obtain relief afterwards from regular practice. Theſe, from different motives, may be ſometimes prevented from expoſing publickly either the inſignificancy of his boaſtings, or the fallibility of his noſtrum.—Others, if the ſecret be a mere placebo, (as ſecrets often are) will remain as they were, neither better nor worſe for the trial. Kind treatment and civility may even here incline in his favor*, and diſpoſe to ſilence the

* I have known patients in low circumſtances, who had received preſents from quack-doctors or their attendants, ready to aſſert the groſſeſt falſehoods. One poor woman, in the laſt ſtage of a deep pulmonary conſumption, aſſured her friends of her recovery; her caſe was frequently advertiſed in the public papers as cured; but unfortunately her itinerant benefactor had not left the town a week before her diſſolution.

the active tongue of reproach, which had otherwiſe been exaſperated in conſequence of diſappointed hope.—Some, although materially injured by a noſtrum, may be ſo much aſhamed of their conduct, as not to mention the injury which they have received.

Thus various cauſes unite to prevent cenſure on failure of ſucceſs, and to afford in ſome caſes of favorable termination that degree of fame, which, though moderate in itſelf, may, by being ſpread with induſtry and ſet off with oſtentation, prove uncommon and extravagant in its influence, not only upon vulgar minds, but upon others both of ſound ſenſe and liberal education. Hence we may conclude, that if mankind will be ſo laviſh of their praiſe from ſingle inſtances of uncertain ſucceſs, they muſt conſtantly be in danger of becoming dupes to their own blind credulity. A practitioner of ordinary abilities and imperfect education, may ſometimes be able to adduce a few accidental caſes of apparent extraordinary cures. But it is not meant by theſe remarks to inſinuate, that every vender of a noſtrum is an empiric, becauſe we know on the contrary that there are men of character and experience, who, (from ſome motive or other which no doubt is

satisfactory to themselves,) may think it proper for a while to withhold their secret from public scrutiny. It is however to be wished, for the general benefit of society, that the fame of medical characters might not be determined by chance or caprice; but that the good sense, [illegible] opportunities of improvement, medical tradition, and general success of a practitioner might fix a lasting stamp upon his character, and be the true standard by which [illegible] his medical abilities.

FINIS.